



South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

July 25, 2008

Mr. Gerardo Rios
Chief - Permits Office
U. S. EPA, Region IX
75 Hawthorne Street, Air 3
San Francisco, California 94105

Dear Mr. Rios:

TAMCO (ID# 018931) has proposed to revise their Title V permit by modifying an electric arc furnace and replacing a baghouse. This is a ferrous scrap metal recycling facility (SIC 3312) located at 12459-B Arrow Route, Rancho Cucamonga, CA 91739. This proposed permit revision as requested under Application No. 477988 is considered a "significant permit revision" to their Title V permit. Attached for your review are the permit evaluation, public notice, permit summary, and draft permit for the proposed permit revision. With your receipt of the proposed Title V permit revision today, we will note that the EPA 45-day review period will begin on July 25th.

The South Coast Air Quality Management District (AQMD) has received three applications for a Permit to Construct and Operate from TAMCO for the equipment described in the enclosed notice. Pursuant to AQMD Rule 212 - Standards for Approving Permits and Issuing Public Notice, new or modified sources exceeding any of the specified daily maximums are subject to the public notification and comment provisions of 40 CFR Part 51, Section 51.161(b), and 40 CFR Part 124, Section 124.10. In addition, pursuant to AQMD Rule 3006, Public Participation, a public notice is required prior to the issuance of a significant revision to a Title V permit. The public notice requirement for Rule 212 and Rule 3006 have been combined into one notice to be conducted simultaneously.

The AQMD has evaluated these applications and made a preliminary determination that the equipment will operate in compliance with all of the applicable requirements of our Rules and Regulations. Therefore, the AQMD is proposing to issue a revised Title V permit to TAMCO for the equipment described in the enclosed notice.

Please find enclosed a public notice for TAMCO issued in accordance with Rule 212(g) and Rule 3006. The public notice provides for a 30-day comment period (which ends August 31, 2008) prior to making a final decision on the issuance of the permits, and is also being published in a newspaper of general circulation in the vicinity of this facility. This notice is being distributed to each address within a 1/4-mile radius of the property line of the facility. This notice is also being sent to the California Air Resources Board, the Southern California Association of Governments, the County of San Bernardino, the City of Rancho Cucamonga, and the State and Federal Land Managers.

If you have any questions or wish to provide comments regarding this project, please call Mr. Kien Huynh at (909) 396-2635.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Brian L. Yeh', is written over a horizontal line.

Brian L. Yeh
Senior Manager
Chemical/Mechanical Operations

BLY:KH
Attachment

<p style="text-align: center;">SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT</p> <p style="text-align: center;"><i>ENGINEERING & COMPLIANCE</i></p> <p style="text-align: center;">APPLICATION PROCESSING AND CALCULATIONS</p>	<table> <tr> <td>Page</td><td>1 of 6</td></tr> <tr> <td>A/N</td><td>472953 & et al</td></tr> <tr> <td>Processed By</td><td>KH</td></tr> <tr> <td>Checked By</td><td></td></tr> <tr> <td>Date</td><td>6/4/08</td></tr> </table>	Page	1 of 6	A/N	472953 & et al	Processed By	KH	Checked By		Date	6/4/08
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Applicant's Name: Tamco

Mailing Address: 12459-B Arrow Route
Rancho Cucamonga, CA 91739

Equipment Location: Same

Equipment Description:

APPLICATION NO. 472953: D4 Modification

ALTERATION TO ELECTRIC ARC FURNACE PERMIT TO OPERATE F48182 (A/N 371370), DEVICE D4, BY:
THE ADDITION OF THE FOLLOWING:

- FOUR OXY-FUEL BURNERS, AMERICAN COMBUSTION MODEL 16-AM0PJ3774NE, EACH 15,600,000 BTU PER HOUR.

APPLICATION NO. 475108: C5 Existing

AIR POLLUTION CONTROL SYSTEM CONSISTING OF:

1. SPRAY TOWER, 13' - 0"DIA. x 73' - 0"H., WITH EIGHT WATER SPRAY NOZZLES.
2. BAGHOUSE, WHEELABRATOR, MODEL 264, WITH 9 COMPARTMENTS, 263,304 SQ. FT. TOTAL FILTERING AREA, THREE 2-HP CANOPY DAMPERS, NINE 3-HP ROTARY AIRLOCKS AND TWO 5-HP DISCHARGE CONVEYORS.
3. EXHAUST SYSTEM WITH TWO 1500-HP BLOWERS VENTING ONE ELECTRIC ARC FURNACE.

APPLICATION NO. 477989: D4 Throughput increase

FURNACE, ELECTRIC ARC TYPE, SCRAP STEEL, ELECTROMELT, SIZE HT, 120 TON CAPACITY, 100,000 KVA, WITH FOUR OXY-FUEL BURNERS, AMERICAN COMBUSTION MODEL 16-AM0PJ3774NE, EACH 15,600,000 BTU PER HOUR.

APPLICATION NO. 477990: C53 Proposed

AIR POLLUTION CONTROL SYSTEM CONSISTING OF:

1. U-TUBE HEAT EXCHANGER, 3' - 0"DIA. x 2068' - 0"L.
2. BAGHOUSE, MIKROPUL, MODEL 360-35-12, WITH 14 COMPARTMENTS, 539,280 SQ. FT. TOTAL FILTERING AREA, THREE 2-HP CANOPY DAMPERS, NINE 3-HP ROTARY AIRLOCKS AND TWO 5-HP DISCHARGE CONVEYORS.
3. EXHAUST SYSTEM WITH TWO 1500-HP BLOWERS VENTING ONE ELECTRIC ARC FURNACE.

HISTORY:

Applications	Received	Eq. Installed
472953	8/21/07	Yes
475108	10/31/07	Yes
477989	2/8/08	Yes
477990	2/8/08	No

Violations recorded: 1 Notice to Comply and 1 Notice of Violation have been issued in the last 2 years. All concerns pertaining to the notices have been resolved.

Application Filing:

Application 472953 was filed to modify the electric arc furnace Permit F48182 (A/N 371370) to add four oxy-fuel burners to the furnace. The furnace modification was done in 2003 without a permits to construct.

Application 475108 is for the associated baghouse with Permit F13082 (A/N 336136). The applicant requests that 'DACRON' from the description of the baghouse be replaced with 'NOMEX/ARAMID'. 'NOMEX/ARAMID' has been used since 2006. The spray tower is existing, but had not been included in the equipment description.

Application 477989 was filed to increase the throughput of the electric arc furnace as follows:

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Throughputs, tons/month	
Existing	Proposed
51,210	100,000

Application 477990 is for a new baghouse replacing the existing baghouse with Permit F13082 (A/N 336136) serving the furnace. The applicant proposes the new baghouse which is more efficient than the replaced one to allow the throughput increase without an increase in PM10 emissions.

Facility Type:	RECLAIM		Title V
	NOx	SOx	
	Yes	No	Yes

PM10 Emissions:

Permit to Construct E1912B for the Electric Arc Furnace was issued in 1975 (prior to the adoption of NSR) and Permit to Operate was issued in 1977. No records are found in NSR for A/N E1912B.

In 1986, A/N 146317 was filed for Permit to Construct to add oxy-fuel burners to the furnace. P/C was issued in the same year. The burners were installed and operated. The burners were later removed due to operational problems. P/O was issued in 1990 with equipment as described on the previous permit. In P/O Engineering Evaluation, the controlled PM emission was stated as 6.03 lb/hr (From District Test Report #E-18-78, Test date: 3-21-78). NSR account shows PM10 = 147 lb/day. NSR Application Emission Report shows PM10 30-day average = 147 lb/day; Controlled PM10 = 6.03 lb/hr. It is noted that the test was conducted when the throughput was 41.7 tph. Therefore, PM emission factor = 0.145 lb/ton (= 6.03 lb/hr/41.7 tph).

Application 310967 was filed in 1996 to replace the EAF internal shell. NSR account shows PM10 = 147 lb/day. NSR Application Emission Report, for this application, shows PM10 30-day average = 147 lb/day; Controlled PM10 = 6.03 lb/hr; Controlled PM = 6 lb/hr. P/O was issued in the same year.

Application 371370 was filed in 2000 to replace the existing 50,000 KVA transformer with a new 100,000 KVA one. NSR account shows PM10 = 147 lb/day. NSR Application Emission Report, for this application, shows PM10 30-day average = 147 lb/day; Controlled PM10 = 6.03 lb/hr; Controlled PM = 6 lb/hr. P/O was issued in 2002 with a throughput limit of 51,210 tons/month. The limit was based on the two-year average throughput from 9/25/98 to 9/24/00. It is noted that PM10 emissions were not corrected for the higher throughput. If corrected using the 1978 test results, PM10 would be 247 lb/day (= 0.145 lb/ton * 51,210 ton/month * 1 month/30 days).

Results of the tests conducted on December 5-6, 2007 show a PM emission factor of 0.142 lb/ton. With this emission factor corrected for natural gas combustion, for the existing throughput of 51,210 tons/month throughput, the 30-day average PM10 emission will be 242 lb/day. Therefore, PM10 for A/N 371370 should be edited to show 242 lb/day.

VOC Emissions:

Prior to the modification to add oxy fuel burners, the VOC emissions from the electric arc furnace were only from melting process. However, NSR database for the furnace under A/N 371370 shows a "0" entry. Results of the tests conducted on September 21, 2007 show a VOC emission factor of 0.064 lb/ton. With this emission factor corrected for natural gas combustion, for the existing throughput of 51,210 tons/month throughput, the 30-day average VOC emission will be 108 lb/day. Therefore, VOC for A/N 371370 should be edited to show 108 lb/day.

PROCESS DESCRIPTION

The facility recycles ferrous scrap metal into concrete reinforcing bars (rebar). The electric arc furnace (EAF) is used to melt ferrous scrap metal. At the beginning of the melt cycle the oxy-fuel burners are used to inject natural gas and oxygen into the EAF to provide supplement heat to reduce electrical demand. Also, the supplement heat, provided by burners, is used at "cold spots" in the furnace to ensure even and efficient melting of the scrap that is further away from the electric arc. After 10 minutes of heating a batch, the burners switch to oxygen injection mode and inject a supersonic stream of oxygen (about 1,200 scfm) into the molten bath to facilitate proper metallurgical refinement of the molten steel.

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CALCULATIONS:

The following are simplified calculations for PM10 and VOC. For detailed calculations, see ATTACHMENTS.

A. PM10 Emissions:

(1) PM10 emissions with existing baghouse and 51,210 tons/month throughput:

(Before burners installation; please note that PM10 emission from combustion process is negligible)

Throughput: 51,210 tons/month

Uncontrolled PM emission factor: 23.06 lb/ton

Control efficiency: 99.385%

Source tests December 5 - 6, 2007 by Ambient Air Services, Inc.

PM10 in total PM: 100%

PM emission, 30-day average:

Uncontrolled: $23.06 \text{ lb/ton} \times 51210 \text{ tons/month} / 30 \text{ days/month} = 39,369 \text{ lb/day}$

Controlled: $39369 \text{ lb/day} \times (1 - 0.99385) = 242 \text{ lb/day}$

Controlled PM10 emission, 30-day average: $242 \text{ lb/day} \times 1 = 242 \text{ lb/day}$

(2) PM10 emissions with the proposed baghouse and 100,000 tons/month throughput⁺:

Throughput: 100,000 tons/month

Uncontrolled PM emission factor: 23.06 lb/ton

Control efficiency: 99.693%

PM10 in total PM: 100%

PM emission, 30-day average:

Uncontrolled: $23.06 \text{ lb/ton} \times 100000 \text{ tons/month} / 30 \text{ days/month} = 76,877 \text{ lb/day}$

Controlled: $76877 \text{ lb/day} \times (1 - 0.99693) = 236 \text{ lb/day}$

Controlled PM10 emission, 30-day average: $236 \text{ lb/day} \times 1 = 236 \text{ lb/day}$

B. VOC emissions:

Emission factors:

Process only: 0.0635 lb/ton

Combustion: (7 lb/MM ft³) 0.0067 lb/MM BTU

VOC control efficiency: 50%

Fuel consumption limit: 23,000,000 scf/month

$23000000 \text{ scf/month} \times 1050 \text{ BTU/scf} \times 10^{-6} = 24,150 \text{ MM BTU/month}$

(1) VOC emissions with 51,210 tons/month throughput (Before burners installation): 51,210 tons/month

VOC emission, 30-day average:

Process only: $51210 \text{ tons/month} \times 0.0635 \text{ lb/ton} / 30 \text{ days/month} = 108 \text{ lb/day}$

(2) VOC emissions with 100,000 tons/month throughput: 100,000 tons/month

VOC emission, 30-day average:

Process: $100000 \text{ tons/month} \times 0.0635 \text{ lb/ton} / 30 \text{ days/month} = 211.6 \text{ lb/day}$

Combustion: $0.0067 \text{ lb/MM BTU} \times 24150 \text{ MM BTU/month} \times (1 - 0.5) / 30 = 2.7 \text{ lb/day}$

Total $(211.6 + 2.7) \text{ lb/day} = 214 \text{ lb/day}$

(3) VOC increase: $214 \text{ lb/day} - 108 \text{ lb/day} = 106 \text{ lb/day}$

RULES EVALUATION

Rule 212:

(c) (1): Emissions near a school

The equipment is not located within 1000 feet from the outer boundary of a school. (The nearest school is 2640 feet from the facility). This is not a project requiring notification under this paragraph.

Source: http://www.greatschools.net/cgi-bin/template_plain/advanced/CA/#address

⁺Calculation procedure has been approved by management

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(c) (2): On-site emission increases exceeding the daily maximums

The VOC, NOx, and CO emission increases exceed the daily maximums specified in subdivision (g) of this rule. The project is subject to the notification requirements of subdivision (c) of this rule.

(c) (3): Emissions of toxic air contaminants

MICR is less than 1 in a million. This is not a project requiring notification under this paragraph.

(g) Emission increases exceeding the daily maximums

The VOC, NOx, and CO emission increases exceed the daily maximums specified in subdivision (g) of this rule. The project is subject to the notification requirements of subdivision (c) of this rule.

Rule 401:

With the installed baghouse, compliance with this rule is expected.

Rule 402:

Nuisance problems due to the operation of this equipment are unlikely.

Rule 404:

	Concentrations, gr/cf		
Flow rate, dscfm	Rule 404 Limit	Calculated ^(a)	Compliance
955,500	0.014	0.0012	Yes

^(a)From ATTACHMENT C

Rule 405:

	Emission Rates, lb/hr		
Process Weight, lb/hr	Rule 405 Limit	Calculated ^(b)	Compliance
277,778	21.74	9.83	Yes

^(b)From ATTACHMENT C

Rules 407:

This equipment is fired with natural gas. Compliance is expected.

Rules 409:

This equipment is fired with natural gas. Compliance is expected.

REGULATION XIII - New Source Review

CO:

CO is in attainment. District's policy (Mohsen Nazami's August 9, 2007 email): CO is exempt from offsets and modeling requirements; the equipment must meet BACT for CO.

Achieved in Practice BACT for Electric Arc Furnaces is direct evacuation system with air gap. The furnace has direct evacuation system with air gap. Complies.

Other non-RECLAIM criteria Pollutants:

BACT:

VOC:

Achieved in Practice BACT for Electric Arc Furnaces is direct evacuation system with air gap and scrap management plan. The furnace has direct evacuation system with air gap and the company has a scrap management plan. Complies.

PM10:

The installed baghouse is BACT for the furnace.

Modeling:

VOC:

Currently, no modeling is required for VOC.

PM10:

There is no emission increase due to the modification/throughput increase. No modeling analysis is necessary.

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Offsets:

SOx

The facility PTE is less than the amounts in Table A of Rule 1304. No offsets are required.

VOC

The facility PTE is over the threshold limit and there is an increase in VOC of 106 lbs/day due to the permit action. External offsets are required.

PM10:

There is no emission increase due to the modification/throughput increase. No external offsets are required.

Rule 1401:

Results of a risk analysis show that MICR increase is less than 1 in a million and HI increase is less than 1. Complies.

Rule 1703 - PSD Analysis:

Since the facility is not within 10 km of a Class I area and the CO emission increase is less than 100 tons per year, except for BACT, all other requirements of Regulation XVII - Prevention of Significant Deterioration - are not applicable to this facility. Achieved in Practice BACT for Electric Arc Furnaces is direct evacuation system with air gap. The furnace has direct evacuation system with air gap. Complies.

Rule 2005 - New Source Review for RECLAIM

NOx:

Modeling:

Results of a screening model show that the equipment will operate in complying with the modeling requirement.

BACT:

Achieved in Practice BACT for Electric Arc Furnaces is direct evacuation system and oxy-fuel burners. The furnace has oxy-fuel burners and direct evacuation system. Complies.

Offsets:

The facility holds enough NOx RTC to cover the emission increases due to the throughput increase.

CFR Part 60, Subpart AA & CFR Part 63, Subpart YYYYYY (Compliance date for Subpart YYYYYY: June 30, 2008)

PM concentration:

Concentrations, gr/dscf		
Subpart Limit	Expected	Compliance
0.0052	0.0012	Yes

Opacity:

With the installed baghouse, the opacity from the furnace building is expected to be less than 6%. Complies.

Mercury switch removal:

As of June 30, 2008, the facility has only purchased motor scrap from scrap providers who participate in an EPA approved program for removal of mercury switches.

DISCUSSIONS

APPLICATION 472953:

D4

Modification

Since subsequent A/N 477989 has been filed, this application should be cancelled.

APPLICATION 475108:

C5

Existing

Filter fabric type is not normally specified on the permit. It will be removed.

Nomex/Aramid has an operating temperature of 400 F*. Since the baghouse exhaust temperature is under 200 F, the fabric can be used for bag filters in the existing baghouse. Dacron has a recommended operating temperature of 275 F**, maximum.

Sources: *Advanced Filter Technology

**AP-40, Second Edition, Page 118

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APPLICATIONS 477989 & 477990:

Process VOC subject to Rule 1401: Source tests are required to collect emission data for organic compounds, generated from the melting process, that are subject to Rule 1401 Amended March 4, 2005. The emission data will be used in Permit to Operate processing.

PM10: Source tests are also required to verify PM10 emissions. Annual testing will first be required to determine the new baghouse performance in a long term. This annual testing requirement may be later removed if it is determined that the baghouse performance is steady over a number of years.

127 lbs of ROG ERCs are required.

Based on information submitted with the application and the above evaluation, it is determined that, if the required ROG ERCs are provided and the required notification is completed, the equipment will operate in compliance with all the applicable rules and regulations of the District.

RECOMMENDATIONS

APPLICATION NO. 472953: D4 Modification

Cancel since subsequent Application 477990 has been submitted.

APPLICATION NO. 475108: C5 Existing

Issue Permit to Operate.

APPLICATION NO. 477989: D4 Throughput increase

Hold Permit to Construct pending VOC ERCs and public notification.

APPLICATION NO. 477990: C53 Proposed

Hold Permit to Construct pending VOC ERCs and public notification.

ATTACHMENT A
Emissions prior to Oxy Fuel Burners Installation
51,210 Tons/Month

A/N: 371370

Given:

Operating Schedule:

hrs/day	24
days/wk	7
weeks/yr	52

Source test information (Test date: August 26 & September 13, 1977; By: AQMD)

CO emissions:	98.6 lb/hr
Throughput	45 tph

Results from source tests December 5 - 6, 2007 by Ambient Air Services, Inc.
(Including PM from natural gas combustion)

PM

Uncontrolled	23.06 lb/ton
Controlled	0.142 lb/ton
PM concentration	0.0038 grain/dsf
Controlled efficiency:	1-0.142 lb/ton/23.06 lb/ton = 99.385%

Source tests September 21, 2007 by Ambient Air Services, Inc.

Throughput	139.1 tph
VOC emissions:	8.9 lb/hr
	8.9 lb/hr/139.1 tph = 0.064 lb/ton
CO:	46.2 lb/hr
	46.2 lb/hr/139.1 tph = 0.332 lb/ton

PM10 in total PM:

Before baghouse	83%
After baghouse	100%

Electric arc furnace throughput limit:*

51,210 tons/month

*Condition 1-4 (Permit issued 3-7-01)

NOx emission factor: (CEMS data - From ATTACHMENT J)

0.218 lb/ton

Computations:

CO emission factor:	98.6 lb/hr/45 tph = 2.19 lb/ton
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Emissions from natural gas combustion:

	VOC	NOx	SOx	CO	PM/PM10
lb/ton	5.12E-04	1.90E-02	8.77E-05	2.56E-03	2.19E-05

Emissions:

VOC

lb/ton**	0.064 lb/ton - 0.00051 lb/ton = 0.063
lb/hr	0.063 lb/ton * 51210 tons/month / 30 days/month / 24 hrs/day = 4.51
lb/day	4.51 lb/hr * 24 hrs/day = 108
lb/yr	108 lb/day * 7 days/wk * 52 wks/yr = 39,437.54

PM

Controlled	
lb/ton**	0.142 lb/ton - 0.0000219 lb/ton = 0.142
lb/hr	0.142 lb/ton * 51210 tons/month / 30 days/month / 24 hrs/day = 10.08
lb/day	10.082 lb/hr * 24 hrs/day = 242
Uncontrolled	
lb/ton**	23.06 lb/ton - 0.0000219 lb/ton = 23.06
lb/hr	23.06 lb/ton * 51210 tons/month / 30 days/month / 24 hrs/day = 1640.36
lb/day	1640.36 lb/hr * 24 hrs/day = 39,369

ATTACHMENT A
Emissions prior to Oxy Fuel Burners Installation
51,210 Tons/Month

PM10:

Controlled

lb/hr 10.08 lb/hr*1 = 10.08
 lb/day 10.08 lb/hr*24 hrs/day = 242
 lb/yr 242 lb/day*7 days/wk*52 wks/yr = 88,087.49

Uncontrolled

lb/hr 1640.36 lb/hr*0.83 = 1361.50
 lb/day 1361.50 lb/hr*24 hrs/day = 32,676

NOx:

lb/hr 0.218 lb/ton*51210 tons/month/30 days/month/24 hrs/day = 15.52
 lb/day 15.52 lb/hr*24 hrs/day = 373
 lb/yr 373 lb/day*7 days/wk*52 wks/yr = 135,606.70

CO:

lb/ton** 0.332 lb/ton - 0.00256 lb/ton = 0.330
 lb/hr 0.334 lb/ton*51210 tons/month/30 days/month/24 hrs/day = 23.44
 lb/day 23.446 lb/hr*24 hrs/day = 563
 lb/yr 563 lb/day*7 days/wk*52 wks/yr = 204,781.45

**Corrected for natural combustion

	VOC	NOx	CO	PM	PM10
lb/ton	0.063	0.218	0.33		
lb/hr					
Uncontrolled	4.51	15.52	23.44	1,640.36	1,361.50
Controlled	4.51	15.52	23.44	10.08	10.08
lb/day					
Uncontrolled	108	373	563	39,369	32,676
Controlled	108	373	563	242	242
lb/yr	39,437.54	135,606.70	204,781.45		88,087.49

Compared to emissions in NSR accounts:

	VOC	NOx	SOx	CO	PM10
A/N 371370	0	110	0	2,399	147

ATTACHMENT B
Natural Gas Combustion
With Actual Fuel Consumption
51,210 Tons/Month

A/N: 472953

Given:

Fuel:	Natural gas
Maximum Heat Input Rating, MM BTU/hr:	62.4
Operating Schedule:	
hrs/day	24
days/wk	7
weeks/yr	52
Emission Factors, lb/MM BTU: (Default)	
VOC:	(7 lb/MM ft ³) 0.0067
NOx	(130 lb/MM ft ³) 0.1238
SOx :	(0.6 lb/MM ft ³) 0.0006
CO:	(35 lb/MM ft ³) 0.0333
PM:	(7.5 lb/MM ft ³) 0.0071
PM ₁₀ in total PM:	100%
HHV of natural gas:	1,050 BTU/ft ³
Control efficiency for VOC and CO from natural gas combustion: (Assumed)	50%
(Air gap & temperature in excess of 3,000 F)	
Control efficiency for PM from natural gas combustion: (Assumed)	98%
(Going through baghouse with PM control efficiency of 99.4% - Source test results)	
Arc furnace throughput limit:*	51,210 tons/month
Fuel consumption factor:**	146.23 scf/ton throughput
*Condition C1.2	
**Applicant's data	

Computations:

HHV of natural gas: 1,050 BTU/ft³

Computations:

Emission after oxy-fuel burners were installed:

Fuel consumption: 146.23 scf/ton*51210 tons/month = 7,488,506 scf/month
(Calculated from throughput limit & fuel consumption factor)
Fuel heat input: 7488506 scf/month*1050 BTU/scf*10⁻⁶ = 7,863 MM BTU/month
Burner operating load (Corrected to operating schedule):
7863 MM BTU/month/(62.4 MM BTU/hr*24 hrs/day*7 days/wk*4.33 wks/month) = 17.3%

Emission from natural gas combustion:

VOC:
lb/10⁶ BTU 0.0333 lb/MM BTU*(1-0.5) = 0.0033
lb/hr, Max 62.4 MM BTU/hr*0.0033 lb/MM BTU= 0.21
lb/hr, Avg. 0.0033 lb/10⁶ BTU*7863 MM BTU/month/7 days/wk/4.33 wks/month/24 hrs/day = 0.04
lb/ton 0.04 lb/hr/(51210 tons/month/4.33 wks/month/7 days/wk/24 hrs/day) = 5.12E-04
NOx:
lb/10⁶ BTU 0.0000 lb/MM BTU*(1-146.231314667061) = 0.1238
lb/hr, Max 62.4 MM BTU/hr*0.0000 lb/MM BTU= 7.73
lb/hr, Avg. 0.1238 lb/10⁶ BTU*7863 MM BTU/month/7 days/wk/4.33 wks/month/24 hrs/day = 1.34
lb/ton 1.34 lb/hr/(51210 tons/month/4.33 wks/month/7 days/wk/24 hrs/day) = 1.90E-02
SOx:
lb/10⁶ BTU 0.0000 lb/MM BTU*(1-) = 0.0006

ATTACHMENT B
Natural Gas Combustion
With Actual Fuel Consumption
51,210 Tons/Month

lb/hr, Max	62.4 MM BTU/hr*0.0000 lb/MM BTU=	0.04
lb/hr, Avg.	0.0006 lb/10 ⁶ BTU*7863 MM BTU/month/7 days/wk/4.33 wks/month/24 hrs/day =	0.01
lb/ton	0.01 lb/hr/(51210 tons/month/4.33 wks/month/7 days/wk/24 hrs/day) =	8.77E-05
CO:		
lb/10 ⁶ BTU	0.0333 lb/MM BTU*(1-0.5) =	0.0167
lb/hr, Max	62.4 MM BTU/hr*0.0000 lb/MM BTU=	1.04
lb/hr, Avg.	0.0167 lb/10 ⁶ BTU*7863 MM BTU/month/7 days/wk/4.33 wks/month/24 hrs/day =	0.18
lb/ton	0.18 lb/hr/(51210 tons/month/4.33 wks/month/7 days/wk/24 hrs/day) =	2.56E-03
PM10:		
lb/10 ⁶ BTU	0.0071 lb/MM BTU*(1-0.98) =	0.0001
lb/hr, Max	62.4 MM BTU/hr*0.0000 lb/MM BTU=	0.01
lb/hr, Avg.	0.0001 lb/10 ⁶ BTU*7863 MM BTU/month/7 days/wk/4.33 wks/month/24 hrs/day =	0.002
lb/ton	0.00 lb/hr/(51210 tons/month/4.33 wks/month/7 days/wk/24 hrs/day) =	2.19E-05

	VOC	NOx	SOx	CO	PM/PM10
Factor (lb/10 ⁶ BTU)	0.0033	0.1238	0.0006	0.0167	0.0001
lb/hr					
Max.	0.21	7.73	0.04	1.04	0.01
Avg.	0.04	1.34	0.01	0.18	0.002
lb/ton	5.12E-04	1.90E-02	8.77E-05	2.56E-03	2.19E-05

Allowable emissions (Modeling; Table A-2 , Rule 1303)

Rating MMBTU/hr	NOx (lb/hr)	CO (lb/hr)	PM10 (lb/hr)
40.00	1.26	69.30	7.60

ATTACHMENT C
Emissions After Throughput Increase
100,000 Tons/Month

A/N: 477989

Given:

Fuel: Natural gas
Maximum Heat Input Rating, MM BTU/hr: 62.4
Operating Schedule:
 hrs/day 24
 days/wk 7
 weeks/yr 52
SOx emission factor from natural combustion: (0.6 lb/MM ft³) 0.0006
PM₁₀ in total PM: (Assumed)
 Before baghouse 83%
 After baghouse 100%
Source tests December 5 - 6, 2007 by Ambient Air Services, Inc.
 Uncontrolled PM emissions: 2,959 lb/hr
 Throughput 128.3 tph
 Exhaust flow rate 562,747 dscfm
 Moisture content of exhaust gases: 2%
Source tests September 21, 2007 by Ambient Air Services, Inc.
 Throughput 139.1 tph
 VOC emissions: 8.9 lb/hr
 CO: 8.9 lb/hr/139.1 tph = 0.064 lb/ton
 46.2 lb/hr/139.1 tph = 0.332 lb/ton
Arc furnace throughput limit:* 100,000 tons/month
Fuel consumption:** 23,000,000 scf/month
 *Condition C1.2
 **Applicant's data
NOx emission factor: (CEMS data - From ATTACHMENT K) 0.142 lb/ton
HHV of natural gas: 1,050 BTU/ft³
Emissions from additional natural gas, lb/ton
 (From ATTACHMENT I)

VOC	NOx	SOx	CO	PM/PM10
0.0003	0.0109	0.0029	0.00003	0.00001

138.8888889

Outlet PM concentration: (Baghouse manufacturer's guarantee) 0.0012 grain/dscf
Exhaust volume: (Applicant's data) 1,200,000 acfm
Exhaust temperature (Applicant's data) 180 F

Computations:

Fuel heat input: 23000000 scf/month*1050 BTU/scf*10⁻⁶ = 24,150 MM BTU/month
Dry exhaust volume: 1200000 acfm*(1-0.02)*(60+460) F/(180+460) F = 955,500 dscfm
Throughput (calculated to operating schedule):
 100000 tons/month/4.29 wks/month/7 days/wk/24.00 hrs/day = 138.9 tph
 138.9 tons/hr*2000 lb/ton = 277,778 lb/day
PM emissions:
 Uncontrolled 2959 lb/hr/128.3 tph = 23.06 lb/ton
 Controlled 0.0012 gr/dscf*955500 dscfm*60 min/hr/7000 gr/lb = 9.83 lb/hr
 9.83 lb/hr/139 tph = 0.07076 lb/ton
 Control efficiency 1-0.07076 lb/ton/23.06 lb/ton = 99.693%

ATTACHMENT C
Emissions After Throughput Increase
100,000 Tons/Month

Emission factors with additional fuel:

VOC:	0.064 lb/ton+0.0003 lb/ton =	0.064 lb/ton
CO:	0.332 lb/ton+0.0005 lb/ton =	0.332 lb/ton
NOx:	0.142 lb/ton+0.011 lb/ton =	0.153 lb/ton

Burner operating load (Corrected to operating schedule):

$$24150 \text{ MM BTU/month} / (62.4 \text{ MM BTU/hr} * 24.0 \text{ hrs/day} * 7 \text{ days/wk} * 4.33 \text{ wks/month}) = 53.20\%$$

Number of days in a month for 30-day average emission calculations: 30

Corresponding number of weeks 30 days/month/7 days/wk = 4.2857

(Data for PM emission calculations)

VOC emissions:

lb/hr	0.064 lb/ton*100000 tons/month/30 days/month/24 hrs/day =	8.93
lb/day	8.93 lb/hr*24.0 hrs/day =	214
lb/yr	214 lb/day*7 days/wk*52 wks/yr =	77,988.14

NOx:

lb/hr	0.153 lb/ton*100000 tons/month/30 days/month/24 hrs/day =	21.21
lb/day	21.2 lb/hr*24 hrs/day =	509
lb/yr	509 lb/day*7 days/wk*52 wks/yr =	185,330.55

SOx:

lb/hr	0.0006 lb/MM BTU*62.4 MM BTU/hr*0.532 =	0.02
lb/day	0.02 lb/hr*24 hrs/day =	0.46
lb/yr	0.9 lb/day*7 days/wk*52 wks/yr =	165.73

CO

lb/hr	0.332 lb/ton*100000 tons/month/30 days/month/24 hrs/day =	46.13
lb/day	46.1 lb/hr*24 hrs/day =	1107
lb/yr	1107 lb/day*7 days/wk*52 wks/yr =	403,021.15

PM:

lb/hr		
Uncontrolled	23.06 lb/ton*100000 tons/month/30 days/month/24hrs/day =	3203.21
Controlled	(See above)	9.83
lb/day		
Uncontrolled	3203.21 lb/hr*24 hrs/day =	76877.11
Controlled	9.83 lb/hr*24 hrs/day*30 days/month/30 =	235.87

PM10:

lb/hr		
Uncontrolled	3203.21 lb/hr*0.83 =	2658.67
Controlled	9.83 lb/hr*1 =	9.83
lb/day		
Uncontrolled	76877.1 lb/hr*0.83 =	63808
Controlled	235. lb/hr*1 =	236
lb/yr	236 lb/day*7 days/wk*52 wks/yr =	85,857.41

ATTACHMENT C
Emissions After Throughput Increase
100,000 Tons/Month

	VOC	NOx	SOx	CO	PM	PM10
Factor (Combustion) (lb/10 ⁶ BTU)			0.0006			
lb/hr						
Uncontrolled	8.93	21.21	0.02	46.13	3,203.21	2,658.67
Controlled	8.93	21.21	0.02	46.13	9.83	9.83
lb/day						
Uncontrolled	214	509	0	1,107	76,877	63,808
Controlled	214	509	0	1,107	236	236
lb/yr	77,988.14	185,330.55	165.73	403,021.15		85,857.41

NSR:

	VOC	NOx	SOx	CO	PM10
Existing	8	714	2	2478	183
A/N 371370					
As recorded	0	110	0	2399	147
Corrected ^(a)	108	373	0	563	242
100,000 tons/month Throughput	214	509	0	1,107	236
Increase (+)					
Decrease (-)	106	136	0	544	-6
PTE	114	850	2	3,022	177
ERCs	127				
Increases, tpy				99.28	

^(a)From ATTACHMENT A

Hourly emission comparison:

	lb/hr			
	VOC	NOx	CO	PM10
100,000 tons/month Throughput	8.93	21.21	46.13	9.83
Prior to burners installation, 51,210 tons/month ^(a)	4.51	15.52	23.44	10.08
Increase (+)	4.41	5.69	22.69	(0.26)
Decrease (-)				

^(a)From ATTACHMENT A

Allowable emissions (Modeling; Table A-2 , Rule 1303)

Rating MMBTU/hr*	NOx (lb/hr)	CO (lb/hr)	PM10 (lb/hr)
40.00	1.31	72.10	7.90

*No data for rating above 40 MM BTU/hr

ATTACHMENT D
Emissions From Combustion of Natural Gas
Actual Fuel Consumption
100,000 Tons/Month

A/N: 477989

Given:

Fuel:	Natural gas
Maximum Heat Input Rating, MM BTU/hr:	62.4
Operating Schedule:	
hrs/day	24
days/wk	7
weeks/yr	52
Emission Factors, lb/MM BTU: (Default, uncontrolled)	
VOC:	(7 lb/MM ft ³) 0.0067
NOx	(130 lb/MM ft ³) 0.1238
SOx :	(0.6 lb/MM ft ³) 0.0006
CO:	(35 lb/MM ft ³) 0.0333
PM:	(7.5 lb/MM ft ³) 0.0071
PM ₁₀ in total PM:	100%
HHV of natural gas:	1,050 BTU/ft ³
Control efficiency for VOC and CO from natural gas combustion: (Assumed)	50%
(Air gap & temperature in excess of 3,000 F)	
Control efficiency for PM from natural gas combustion: (Assumed)	98%
(Going through baghouse with PM control efficiency of 99.4% - Source test results)	
Arc furnace throughput limit:*	100,000 tons/month
Fuel consumption factor:**	146 scf/ton throughput
*Condition C1.2	
**Applicant's data	

Computations:

HHV of natural gas:	1,050 BTU/ft ³
---------------------	---------------------------

Computations:

Emission after oxy-fuel burners were installed:

Fuel consumption: (Calculated from throughput limit & fuel consumption factor)	14,623,131 scf/month
	15,354 MM BTU/month
	33.8%

Burner operating load (Corrected to operating schedule):

Emission from natural gas combustion:

VOC:

lb/10 ⁶ BTU	0.0067 lb/MM BTU*(1-0.5) =	0.0033
lb/hr, Max	62.4 MM BTU/hr*0.0033 lb/MM BTU=	0.21
lb/hr, Avg.	0.0033 lb/10 ⁶ BTU*15354 MM BTU/month/7 days/wk/4.33 wks/month/24 hrs/day =	0.07
lb/ton	0.07 lb/hr/(100000 tons/month/4.33 wks/month/7 days/wk/24 hrs/day) =	5.12E-04

NOx:

lb/10 ⁶ BTU		0.1238
lb/hr, Max	62.4 MM BTU/hr*0.1238 lb/MM BTU=	7.73
lb/hr, Avg.	0.1238 lb/10 ⁶ BTU*15354 MM BTU/month/7 days/wk/4.33 wks/month/24 hrs/day =	2.61
lb/ton	2.61 lb/hr/(100000 tons/month/4.33 wks/month/7 days/wk/24 hrs/day) =	1.90E-02

ATTACHMENT D
Emissions From Combustion of Natural Gas
Actual Fuel Consumption
100,000 Tons/Month

SOx:

lb/10 ⁶ BTU		0.0006
lb/hr, Max	62.4 MM BTU/hr*0.0006 lb/MM BTU=	0.04
lb/hr, Avg.	0.0006 lb/10 ⁶ BTU*15354 MM BTU/month/7 days/wk/4.33 wks/month/24 hrs/day =	0.01
lb/ton	0.01 lb/hr/(100000 tons/month/4.33 wks/month/7 days/wk/24 hrs/day) =	8.77E-05

CO:

lb/10 ⁶ BTU	0.0006 lb/MM BTU*(1-0.5) =	0.0167
lb/hr, Max	62.4 MM BTU/hr*0.0167 lb/MM BTU=	1.04
lb/hr, Avg.	0.0167 lb/10 ⁶ BTU*15354 MM BTU/month/7 days/wk/4.33 wks/month/24 hrs/day =	0.35
lb/ton	0.35 lb/hr/(100000 tons/month/4.33 wks/month/7 days/wk/24 hrs/day) =	2.56E-03

PM/PM10:

lb/10 ⁶ BTU	0.0071 lb/MM BTU*(1-0.98) =	0.0001
lb/hr, Max	62.4 MM BTU/hr*0.0001 lb/MM BTU=	0.01
lb/hr, Avg.	0.0001 lb/10 ⁶ BTU*15354 MM BTU/month/7 days/wk/4.33 wks/month/24 hrs/day =	0.003
lb/ton	0.003 lb/hr/(100000 tons/month/4.33 wks/month/7 days/wk/24 hrs/day) =	2.19E-05

	VOC	NOx	SOx	CO	PM/PM10
Factor (lb/10 ⁶ BTU)	0.0033	0.1238	0.0006	0.0167	0.0001
lb/hr					
Max.	0.21	7.73	0.04	1.04	0.01
Avg.	0.07	2.61	0.01	0.35	0.003
lb/ton	5.12E-04	1.90E-02	8.77E-05	2.56E-03	2.19E-05

ATTACHMENT E
Emissions From Combustion of Natural Gas
Fuel Consumption Limit
100,000 Tons/Month

A/N: 477989

Given:

Fuel:	Natural gas
Maximum Heat Input Rating, MM BTU/hr:	62.4
Operating Schedule:	
hrs/day	24
days/wk	7
weeks/yr	52
Emission Factors, lb/MM BTU: (Default, uncontrolled)	
VOC:	(7 lb/MM ft ³) 0.0067
NOx	(130 lb/MM ft ³) 0.1238
SOx :	(0.6 lb/MM ft ³) 0.0006
CO:	(35 lb/MM ft ³) 0.0333
PM:	(7.5 lb/MM ft ³) 0.0071
PM ₁₀ in total PM:	100%
HHV of natural gas:	1,050 BTU/ft ³
Control efficiency for VOC and CO from natural gas combustion: (Assumed)	50%
(Air gap & temperature in excess of 3,000 F)	
Control efficiency for PM from natural gas combustion: (Assumed)	98%
(Going through baghouse with PM control efficiency of 99.4% - Source test results)	
Arc furnace throughput limit:*	100,000 tons/month
Fuel consumption:**	23,000,000 scf/month
*Condition C1.2	
**Applicant's data	

Computations:

HHV of natural gas:	1,050 BTU/ft ³
<u>Computations:</u>	
Fuel heat input:	23000000 scf/month*1050 BTU/ft ³ *10 ⁻⁶ = 24,150 MM BTU/month
Burner operating load (Corrected to operating schedule):	
24150MM BTU/month/(62.4 MM BTU/hr*24 hrs/day*7 days/wk*4.33 wks/month) =	53.2%

Emission from natural gas combustion:

VOC:

lb/10 ⁶ BTU	0.0067 lb/MM BTU*(1-0.5) =	0.0033
lb/hr, Max	62.4 MM BTU/hr*0.0033 lb/MM BTU=	0.21
lb/hr, Avg.	0.0033 lb/10 ⁶ BTU*24150 MM BTU/month/7 days/wk/4.33 wks/month/24 hrs/day =	0.11
lb/ton	0.11 lb/hr/(100000 tons/month/4.33 wks/month/7 days/wk/24 hrs/day) =	8.05E-04

NOx:

lb/10 ⁶ BTU	0.1238 lb/MM BTU*(1-0.98) =	0.0025
lb/hr, Max	62.4 MM BTU/hr*0.0025 lb/MM BTU=	0.16
lb/hr, Avg.	0.0025 lb/10 ⁶ BTU*24150 MM BTU/month/7 days/wk/4.33 wks/month/24 hrs/day =	0.0011
lb/ton	0.0011 lb/hr/(100000 tons/month/4.33 wks/month/7 days/wk/24 hrs/day) =	2.99E-02

ATTACHMENT E
Emissions From Combustion of Natural Gas
Fuel Consumption Limit
100,000 Tons/Month

SOx:

lb/10 ⁶ BTU		0.0006
lb/hr, Max	62.4 MM BTU/hr*0.0006 lb/MM BTU=	0.04
lb/hr, Avg.	0.0006 lb/10 ⁶ BTU*2415 MM BTU/month/7 days/wk/4.33 wks/month/24 hrs/day =	0.02
lb/ton	0.02 lb/hr/(100000 tons/month/4.33 wks/month/7 days/wk/24 hrs/day) =	1.38E-04

CO:

lb/10 ⁶ BTU	0.0006 lb/MM BTU*(1-0.5) =	0.0167
lb/hr, Max	62.4 MM BTU/hr*0.0167 lb/MM BTU=	1.04
lb/hr, Avg.	0.0167 lb/10 ⁶ BTU*2415 MM BTU/month/7 days/wk/4.33 wks/month/24 hrs/day =	0.55
lb/ton	0.55 lb/hr/(100000 tons/month/4.33 wks/month/7 days/wk/24 hrs/day) =	4.03E-03

PM/PM10:

lb/10 ⁶ BTU	0.0071 lb/MM BTU*(1-0.98) =	0.0001
lb/hr, Max	62.4 MM BTU/hr*0.0001 lb/MM BTU=	0.01
lb/hr, Avg.	0.0001 lb/10 ⁶ BTU*2415 MM BTU/month/7 days/wk/4.33 wks/month/24 hrs/day =	0.005
lb/ton	0.005 lb/hr/(100000 tons/month/4.33 wks/month/7 days/wk/24 hrs/day) =	3.45E-05

	VOC	NOx	SOx	CO	PM/PM10
Factor (lb/10 ⁶ BTU)	0.0033	0.1238	0.0006	0.0167	0.0001
lb/hr					
Max.	0.21	7.73	0.04	1.04	0.01
Avg.	0.11	4.11	0.02	0.55	0.005
lb/ton	8.05E-04	2.99E-02	1.38E-04	4.03E-03	3.45E-05

ATTACHMENT F
Natural Gas Combustion
Additional Fuel
(Fuel Consumption Limit - Actual Fuel Consumption)
100,000 Tons/Month

A/N: 477989

Given:

Operating Schedule:

hrs/day	24
days/wk	7
weeks/yr	52

Emission Factors, lb/MM BTU: (Default, uncontrolled)

VOC:	(7 lb/MM ft ³)	0.0067
NOx	(130 lb/MM ft ³)	0.1238
SOx :	(0.6 lb/MM ft ³)	0.0006
CO:	(35 lb/MM ft ³)	0.0333
PM:	(7.5 lb/MM ft ³)	0.0071

PM₁₀ in total PM: 100%

HHV of natural gas: 1,050 BTU/ft³

Control efficiency for VOC and CO from natural gas combustion: (Assumed) 50%

(Air gap & temperature in excess of 3,000 F)

Control efficiency for PM from natural gas combustion: (Assumed) 98%

(Going through baghouse with PM control efficiency of 99.4% - Source test results)

Heat inputs:

Actual	(From ATTACHMENT G)	15,354 MM BTU/month
At fuel limit	(From ATTACHMENT H)	24,150 MM BTU/month

Arc furnace throughput limit: * 100,000 tons/month

*Condition C1.2

Computations:

Additional heat input: 24150 MM BTU/month - 15354 MM BTU/month = 8,796 MM BTU/month

Emission from additional natural gas combustion:

VOC:

lb/10 ⁶ BTU	0.0067 lb/MM BTU * (1 - 0.5) =	0.0033
lb/hr.	0.0033 lb/10 ⁶ BTU * 8796 MM BTU/month / 7 days/wk / 4.33 wks/month / 24 hrs/day =	0.04
lb/ton	0.04 lb/hr / (100000 tons/month / 4.33 wks/month / 7 days/wk / 24 hrs/day) =	2.93E-04

NOx:

lb/10 ⁶ BTU	0.1238 lb/10 ⁶ BTU * 8796 MM BTU/month / 7 days/wk / 4.33 wks/month / 24 hrs/day =	0.1238
lb/hr.	0.1238 lb/10 ⁶ BTU * 8796 MM BTU/month / 7 days/wk / 4.33 wks/month / 24 hrs/day =	1.50
lb/ton	1.50 lb/hr / (100000 tons/month / 4.33 wks/month / 7 days/wk / 24 hrs/day) =	1.09E-02

SOx:

lb/10 ⁶ BTU	0.0333 lb/10 ⁶ BTU * 8796 MM BTU/month / 7 days/wk / 4.33 wks/month / 24 hrs/day =	0.0333
lb/hr.	0.0333 lb/10 ⁶ BTU * 8796 MM BTU/month / 7 days/wk / 4.33 wks/month / 24 hrs/day =	0.40
lb/ton	0.40 lb/hr / (100000 tons/month / 4.33 wks/month / 7 days/wk / 24 hrs/day) =	2.93E-03

ATTACHMENT F
Natural Gas Combustion
Additional Fuel
(Fuel Consumption Limit - Actual Fuel Consumption)
100,000 Tons/Month

CO:

lb/10 ⁶ BTU	0.0006 lb/MM BTU*(1-0.5) =	0.0003
lb/hr.	0.0003 lb/10 ⁶ BTU*8796 MM BTU/month/7 days/wk/4.33 wks/month/24 hrs/day =	0.003
lb/ton	0.003 lb/hr/(100000 tons/month/4.33 wks/month/7 days/wk/24 hrs/day) =	2.51E-05

PM/PM10:

lb/10 ⁶ BTU	0.0071 lb/MM BTU*(1-0.98) =	0.0001
lb/hr.	0.0001 lb/10 ⁶ BTU*8796 MM BTU/month/7 days/wk/4.33 wks/month/24 hrs/day =	0.002
lb/ton	0.002 lb/hr/(100000 tons/month/4.33 wks/month/7 days/wk/24 hrs/day) =	1.26E-05

	VOC	NOx	SOx	CO	PM/PM10
Factor					
(lb/10 ⁶ BTU)	0.0033	0.1238	0.0333	0.0003	0.0001
lb/hr	0.04	1.50	0.40	0.003	0.002
lb/ton	2.93E-04	1.09E-02	2.93E-03	2.51E-05	1.26E-05

ATTACHMENT G
NOx Emission Factor
Prior to Oxy Fuel Burners Installation

From	To	NOx
9/25/98	9/24/99	96,578
9/25/99	9/24/00	171,655
Average		134,117 lb/yr

Materials charged

51,210 tons/month
614,520 tpy

NOx emission factor

0.218 lb/ton

Note: There are no NOx reported data for period from 9-25-98 to 1-1-99. We use NOx emissions for period from 1-2-99 to 9-24-99 for period 9-25-98 to 9-24-99. The use of NOx emissions from a shorer period will result in a lower NOx emission for periods prior to oxy fuel burners installation (Conservative).

ATTACHMENT H
NOx emissions
CEMS Data

PM test periods

Days	12/5/07	12/6/07
# hours	12	7 hrs
Total NOx emissions	188.60	127.4 lbs
Average NOx emission rate	15.72	18.20 lbs/hr
Throughput	128.30	128.3 tph
NOx emission factors	0.122	0.142 lb/ton

VOC/CO test period

Day	9/21/07
# hours	11 hrs
Total NOx emissions	175.90 lbs
Average NOx emission rate	15.99 lbs/hr
Throughput	139.1 tph
NOx emission factor	0.115 lb/ton

Selected NOx emission factor for current NOx emission calculations	0.142 lb/ton
--	--------------

Modeling Data
100,000 Tons/Month

Exhaust flow rate:

acfm

1,200,000

scfm

Stack diameter, in

703.6

Stack height, ft

97.3

Temperature, F

180

Rain cap?

Yes	No*
	x

*Or with a swing raincap fully open when operated, or with a design that there is no flow direction change.

Data for modeling:

Actual volume flow rate (acfm)

1,200,000

Stack diameter, m

17.87

Stack height, m

29.67

Temperature, K

356

Modeling
100,000 Tons/Month

Adjusting factor 1, for 1-hr GLC to annual GLC:	0.08
Adjusting factor 2, for 1-hr GLC to annual GLC:	1.00 (Operating time)
Adjusting factor 3, for 1-hr GLC to annual GLC:	1.00 (Load factor)
Conversion factor from $\mu\text{g}/\text{m}^3$ @ 60 F to ppmv:	0.000515

Operating schedule

hrs/day	24
days/wk	7
wks/yr	52

Modeling data, per 1 g/sec emission

NOx emission increase	3.685 $\mu\text{g}/\text{m}^3$	
	5.69 lb/hr	
	<u>$\mu\text{g}/\text{m}^3$</u>	<u>ppm</u>
Max. 1-hr NO ₂ Ground Level Concentration:	2.64	0.0014
Annual NO ₂ Ground Level Concentration	0.21	0.00011

NOx 1-hr:

Air quality standard	0.25 ppm		
Significant change in air quality standard	0.01 ppm		
Background (Max. of 2004, 2005 and 2006)	0.16 ppm		
Allowed increment	0.25 - 0.16 = 0.09 ppm		
Expected increment	0.0014 ppm		PASS

NOx Annual:

Air quality standard	0.053 ppm		
Significant change in air quality standard	0.0005 ppm		
Background (Max. of 2004, 2005 and 2006)	0.0332 ppm		
Allowed increment	0.053 - 0.0332 = 0.0198 ppm		
Expected increment	0.00011 ppm		PASS

A/N 477989

Toxics
100,000 Tons/Month

Furnace Rating:	62.4 MM BTU
Fuel HHV	1,050 BTU/ft ³
Fuel consumption: (From ATTACHMENT H)	23,000,000 scf/month
Annual fuel consumption:	23000000 cf/month*12 months/yr = 276,000,000 ft ³
Operating Schedule:	
hrs/day	24
days/wk	7
weeks/yr	52
Control efficiency:	50%
Fuel rate:	31,593 scf/hr

*From Calculations - Natural Gas Combustion/Fuel Consumption Limit

	Emissions			
	lb/MM ft ³	lb/hr	lb/day	lb/yr
Acetaldehyde	0.0031	4.90E-05	0.00118	0.42780
Acrolein	0.0027	4.27E-05	0.00102	0.37260
Benzene	0.0058	9.16E-05	0.00220	0.80040
Formaldehyde	0.0123	1.94E-04	0.00466	1.69740
Naphthalene	0.0003	4.74E-06	0.00011	0.04140
PAH'S	0.0001	1.58E-06	0.00004	0.01380
Toluene	0.0265	4.19E-04	0.01005	3.65700
Xylenes	0.0197	3.11E-04	0.00747	2.71860

Note:

Toxic air contaminants are from Emission Factors for AB-2588

Application deemed complete date:	02/08/08
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477989
Tamco

1. Stack Data		Units
Hour/Day		24 hr/day
Day/Week		7 day/wk
Week/Year		52 wk/yr
Emission Units		lb/yr
Control Efficiency		fraction range 0-1
Does source have TBACT?		NO
Point or Volume Source ?		P or v
Stack Height or Building Height		75 feet
Area (For Volume Source Only)		ft
Distance-Residential		804 meters
Distance-Commercial		762 meters
Meteorological Station		Fontana
Source Type:		O - Other
Screening Mode		
Emission Units		lb/yr
Source output capacity		n/a

[illegible]

TIER 2 SCREENING RISK ASSESSMENT

A/N: 477989

Fac: Tamco

Application deemed complete date: 02/08/08

2. Tier 2 Data

MET Factor	1.19
4 hr	0.92
6 or 7 hrs	0.78

Dispersion Factors

3	3A & 3B For Chronic X/Q	
6	For Acute X/Q	
Dilution Factors (ug/m3)/(tons/yr)		
Receptor	X/Q	X/Qmax
Residential	0.19016	12.4528
Commercial	0.20948	13.5784
Adjustment and Intake Factors		
	Afann	DBR
Residential	1	302
Worker	1	149

3. Rule 1401 Compound Data

[illegible]

4. Emission Calculations					
Compound	uncontrolled		controlled		
	R1-lb/hr	R2-lb/hr	R2-lb/yr	R2-ton/yr	
Acetaldehyde	4.90E-05	4.90E-05	0.4278	0.0002139	
Acrolein	4.27E-05	4.27E-05	0.3726	0.0001863	
Benzene (including benzene from gasoline)	9.16E-05	9.16E-05	0.8004	0.0004002	
Formaldehyde	1.94E-04	1.94E-04	1.6974	0.0008487	
Naphthalene	4.74E-06	4.74E-06	0.0414	0.0000207	
PolyCyclic Aromatic Hydrocarbon (PAHs)	1.58E-06	1.58E-06	0.0138	0.0000069	
Toluene (methyl benzene)	4.19E-04	4.19E-04	3.657	0.0018285	
Xylenes (isomers and mixtures)	3.11E-04	3.11E-04	2.7186	0.0013593	
Total	1.11E-03	1.11E-03	9.73E+00	4.86E-03	

A/N: 477989

Date: 02/08/08

TIER 2 RESULTS

5. MICR

MICR = CP (mg/(kg-day))^{1/4} * Q (ton/yr) * (X/Q) * Afann * Met * DBR * EVF * 1.E-6 * MP

Compound	Residential	Commercial
Acetaldehyde	1.40E-10	3.02E-11
Acrolein		
Benzene (including benzene from gasoline)	2.63E-09	5.65E-10
Formaldehyde	1.17E-09	2.52E-10
Napthalene	1.63E-10	3.51E-11
PolyCyclic Aromatic Hydrocarbon (PAHs)		
Toluene (methyl benzene)	5.25E-08	5.55E-09
Xylenes (isomers and mixtures)		
Total	5.66E-08	6.43E-09

Pass Pass

No Cancer Burden, MICR<1.E=-6

5a. Cancer Burden		no
X/Q for one-in-a-million:		
Distance (meter)		no data
Area (km2):		
Population:		
Cancer Burden:		

6. Hazard Index

HIA = [Q(lb/hr) * (X/Q)max] * AF / Acute REL

HIC = [Q(ton/yr) * (X/Q) * MET * MP] / Chronic REL

Target Organs	Acute	Chronic
Alimentary system (liver) - AL		
Bones and teeth - BN		
Cardiovascular system - CV		
Developmental - DEV	9.57E-07	3.18E-06
Endocrine system - END		
Eye	3.08E-03	8.45E-04
Hematopoietic system - HEM	8.04E-07	1.66E-06
Immune system - IMM	2.89E-05	
Kidney - KID		
Nervous system - NS	1.54E-07	3.67E-06
Reproductive system - REP	9.57E-07	
Respiratory system - RES	3.08E-03	8.53E-04
Skin		

A/N: 477989 Date: 02/08/08

6a. Hazard Index Acute

$$HIA = [Q(lb/hr) * (X/Q)max] * AF / Acute REL$$

		HIA - Residential								
Compound	AL	CV	DEV	EYE	HEM	IMM	NS	REP	RESP	SKIN
Acetaldehyde			7.37E-07	2.80E-03	7.37E-07	7.37E-07	1.41E-07	7.37E-07	2.80E-03	
Acrolein				2.57E-05	2.57E-05	2.57E-05			2.57E-05	
Benzene (including benzene										
Formaldehyde										
Napthalene										
PolyCyclic Aromatic Hydroc										
Toluene (methyl benzene)										
Xylenes (isomers and mixtur			1.41E-07	1.41E-07	1.41E-07			1.41E-07	1.41E-07	
				1.76E-07					1.76E-07	
Total			8.78E-07	2.82E-03	7.37E-07	2.65E-05	1.41E-07	8.78E-07	2.82E-03	

Compound	HIA - Commercial									
	AL	CV	DEV	EYE	HEM	IMM	NS	REP	RESP	SKIN
Acetaldehyde										
Acrolein				3.05E-03					3.05E-03	
Benzene (including benzene			8.04E-07	2.81E-05	8.04E-07	8.04E-07		8.04E-07		
Formaldehyde						2.81E-05			2.81E-05	
Naphthalene										
PolyCyclic Aromatic Hydroc										
Toluene (methyl benzene)			1.54E-07	1.54E-07			1.54E-07	1.54E-07	1.54E-07	
Xylenes (isomers and mixtur				1.92E-07					1.92E-07	
Total			9.57E-07	3.08E-03	8.04E-07	2.89E-05	1.54E-07	9.57E-07	3.08E-03	

6b. Hazard Index Chronic

$$HIC = [Q(\text{ton/yr}) * (X/Q) * MET * MPI] / \text{Chronic REL}$$

HIC - Residential		AL	BN	CV	DEV	END	EYE	HEM	IMM	KID	NS	REP	RESP	SKIN
Compound														
Acetaldehyde													5.38E-06	
Acrolein													7.03E-04	
Benzene (including benzene														
Formaldehyde					1.51E-06		7.03E-04	1.51E-06			1.51E-06		6.40E-05	
Napthalene							6.40E-05						5.20E-07	
PolyCyclic Aromatic Hydroc														
Toluene (methyl benzene)					1.38E-06						1.38E-06		1.38E-06	
Xylenes (isomers and mixtur											4.39E-07		4.39E-07	
Total					2.89E-06		7.67E-04	1.51E-06			3.33E-06		7.74E-04	

477989

02/08/08

Risk 477989 Tamco Rev2A

05/20/08

14:34:14

*** SCREEN3 MODEL RUN ***
 *** VERSION DATED 96043 ***

TAMCO 477989

SIMPLE TERRAIN INPUTS:

SOURCE TYPE = POINT
 EMISSION RATE (G/S) = 1.00000
 STACK HEIGHT (M) = 29.6700
 STK INSIDE DIAM (M) = 17.8700
 STK EXIT VELOCITY (M/S) = 2.2581
 STK GAS EXIT TEMP (K) = 356.0000
 AMBIENT AIR TEMP (K) = 293.0000
 RECEPTOR HEIGHT (M) = .0000
 URBAN/RURAL OPTION = URBAN
 BUILDING HEIGHT (M) = .0000
 MIN HORIZ BLDG DIM (M) = .0000
 MAX HORIZ BLDG DIM (M) = .0000

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
 THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

STACK EXIT VELOCITY WAS CALCULATED FROM
 VOLUME FLOW RATE = 1200000.0 (ACFM)

BUOY. FLUX = 312.834 M**4/S**3; MOM. FLUX = 335.026 M**4/S**2.

*** FULL METEOROLOGY ***

 *** SCREEN AUTOMATED DISTANCES ***

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
25.	.0000	1	1.0	1.2	1063.8	1062.82	23.90	23.34	NO
100.	.2325	4	20.0	26.2	6400.0	46.33	15.89	14.03	NO
200.	3.433	4	20.0	26.2	6400.0	46.33	31.06	27.49	NO
300.	3.410	4	20.0	26.2	6400.0	46.33	45.66	40.58	NO
400.	2.609	4	20.0	26.2	6400.0	46.33	59.77	53.30	NO
500.	2.145	4	15.0	19.7	4800.0	61.78	73.70	66.03	NO
600.	1.999	6	4.0	5.5	10000.0	94.61	65.14	44.08	NO
700.	2.278	6	4.0	5.5	10000.0	94.61	73.23	47.54	NO
800.	2.478	6	3.5	4.9	10000.0	98.91	81.64	51.58	NO
900.	2.653	6	2.5	3.5	10000.0	110.65	90.59	56.62	NO
1000.	2.809	6	2.5	3.5	10000.0	110.65	98.20	59.66	NO
1100.	2.914	6	2.5	3.5	10000.0	110.65	105.67	62.62	NO
1200.	2.980	6	2.5	3.5	10000.0	110.65	113.02	65.51	NO
1300.	3.013	6	2.5	3.5	10000.0	110.65	120.22	68.31	NO
1400.	3.020	6	2.5	3.5	10000.0	110.65	127.29	71.04	NO
1500.	3.009	6	2.5	3.5	10000.0	110.65	134.22	73.69	NO
1600.	2.982	6	2.5	3.5	10000.0	110.65	141.02	76.28	NO
1700.	2.945	6	2.5	3.5	10000.0	110.65	147.70	78.80	NO
1800.	2.901	6	2.5	3.5	10000.0	110.65	154.25	81.26	NO
1900.	2.859	6	2.0	2.8	10000.0	124.38	161.18	84.62	NO
2000.	2.835	6	2.0	2.8	10000.0	124.38	167.48	86.95	NO
2100.	2.805	6	2.0	2.8	10000.0	124.38	173.67	89.22	NO

2200.	2.771	6	2.0	2.8	10000.0	124.38	179.75	91.45	NO
2300.	2.733	6	2.0	2.8	10000.0	124.38	185.74	93.64	NO
2400.	2.693	6	2.0	2.8	10000.0	124.38	191.62	95.78	NO
2500.	2.651	6	2.0	2.8	10000.0	124.38	197.41	97.88	NO
2600.	2.620	6	1.5	2.1	10000.0	146.08	203.72	101.17	NO
2700.	2.602	6	1.5	2.1	10000.0	146.08	209.32	103.17	NO
2800.	2.582	6	1.5	2.1	10000.0	146.08	214.83	105.14	NO
2900.	2.560	6	1.5	2.1	10000.0	146.08	220.26	107.08	NO
3000.	2.536	6	1.5	2.1	10000.0	146.08	225.62	108.99	NO
3500.	2.467	6	1.0	1.4	10000.0	179.85	252.19	119.94	NO
4000.	2.427	6	1.0	1.4	10000.0	179.85	276.23	128.33	NO
4500.	2.360	6	1.0	1.4	10000.0	179.85	298.91	136.25	NO
5000.	2.280	6	1.0	1.4	10000.0	179.85	320.43	143.75	NO
5500.	2.195	6	1.0	1.4	10000.0	179.85	340.92	150.90	NO
6000.	2.109	6	1.0	1.4	10000.0	179.85	360.50	157.74	NO
6500.	2.025	6	1.0	1.4	10000.0	179.85	379.27	164.30	NO
7000.	1.944	6	1.0	1.4	10000.0	179.85	397.33	170.62	NO
7500.	1.867	6	1.0	1.4	10000.0	179.85	414.73	176.72	NO
8000.	1.795	6	1.0	1.4	10000.0	179.85	431.53	182.62	NO
8500.	1.726	6	1.0	1.4	10000.0	179.85	447.80	188.34	NO
9000.	1.662	6	1.0	1.4	10000.0	179.85	463.58	193.89	NO
9500.	1.602	6	1.0	1.4	10000.0	179.85	478.90	199.29	NO
10000.	1.545	6	1.0	1.4	10000.0	179.85	493.80	204.55	NO
15000.	1.132	6	1.0	1.4	10000.0	179.85	625.12	251.23	NO
20000.	.8886	6	1.0	1.4	10000.0	179.85	734.59	290.55	NO
25000.	.7301	6	1.0	1.4	10000.0	179.85	830.27	325.17	NO
30000.	.6192	6	1.0	1.4	10000.0	179.85	916.26	356.45	NO
40000.	.4746	6	1.0	1.4	10000.0	179.85	1068.02	411.96	NO
50000.	.3846	6	1.0	1.4	10000.0	179.85	1200.97	460.83	NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 25. M:

241.	3.685	4	20.0	26.2	6400.0	46.33	37.26	33.03	NO
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DWASH= MEANS NO CALC MADE (CONC = 0.0)
 DWASH=NO MEANS NO BUILDING DOWNWASH USED
 DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
 DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
 DWASH=NA MEANS DOWNWASH NOT APPLICABLE, $X < 3 \cdot LB$

 *** SUMMARY OF SCREEN MODEL RESULTS ***

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	3.685	241.	0.

 ** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **



South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

NOTICE OF INTENT TO ISSUE "PERMITS TO CONSTRUCT AND OPERATE" PURSUANT TO RULE 212 AND A TITLE V PERMIT PURSUANT TO RULE 3006

This notice is to inform you that the South Coast Air Quality Management District (AQMD) has received two applications for Permits to Construct to modify an electric arc furnace and install a new baghouse to replace an existing baghouse, and one application for Permit to Operate an existing baghouse at a location in your neighborhood. The AQMD is the air pollution control agency for all of Orange County and portions of Los Angeles, Riverside and San Bernardino Counties. Anyone wishing to operate, install or modify equipment that could be a source of air pollution within this region must first obtain permits from the AQMD. Rule 212 requires the applicant for certain projects, such as this one, to distribute and publish a public notice prepared by the AQMD prior to the issuance of a permit.

The AQMD has evaluated the permit applications for the following equipment and determined that the equipment will meet all applicable air quality requirements of our Rules and Regulations.

APPLICANT: TAMCO (ID NO. 018931)
APPLICATION NOs.: 475108, 477989 & 477990
LOCATION: 12459-B ARROW ROUTE, RANCHO CUCAMONGA, CA 91739
PROJECT DESCRIPTION: MODIFY AND CHANGE PERMIT CONDITIONS ON AN
ELECTRIC ARC FURNACE, INSTALL A NEW BAGHOUSE
AND OPERATE AN EXISTING BAGHOUSE

This facility recycles ferrous scrap metal into concrete reinforcing bars (rebar). The electric arc furnace is used to melt ferrous scrap metal. Particulate matter and volatile organic compounds (VOC) are emitted during the metal melting process. The furnace is vented to a baghouse to control the particulate emissions. The company modified the furnace by installing natural gas fired oxy-fuel burners at "cold spots" in the furnace to ensure even and efficient melting of the scrap metal, to provide supplemental heat, and reduce electrical demand. The burners are also used to inject oxygen into the molten bath to facilitate proper metallurgical refinement of the molten steel. The company is also proposing to change permit conditions on the furnace to increase the metal throughput limit currently allowed. In addition, they are proposing to replace the existing baghouse with a more efficient baghouse to further reduce particulate emissions.

The furnace will use the best available control technology for controlling air pollution. The maximum emission increase from the modification and change of conditions to the electric arc furnace will be less than 106 pounds of VOC, 136 pounds of oxides of nitrogen (NOx), and 544 pounds of carbon monoxide (CO) per day. These emission increases are from the combustion of natural gas in the oxy fuel burners and the proposed increase in metal melting throughput in the furnace. Generally, the emissions will be less than the allowable emissions as most facilities do not operate at their maximum potential. But even at the maximum amount, this project complies with all aspects of the AQMD's air pollution control requirements. The combustion of natural gas in the burners will result in small quantities of some toxic compounds. The AQMD has evaluated the short term (acute) and long term (chronic) health impacts associated with the maximum potential emissions. Using worst case conditions, our evaluation shows that the chronic and acute health risks are both well below our rule's toxic thresholds (below a Hazard Index of 1). According to our state health experts, a hazard index of one or less means that the

surrounding community including the most sensitive individuals such as very young children and the elderly will not experience any adverse health impacts due to the toxic nature of these emissions. In addition, the long term cancer risk from these emissions is far below the AQMD risk threshold of one in a million.

The air quality analysis of this project is available for public review at the AQMD's headquarters in Diamond Bar and at the Paul A. Biane Library, 12505 Culture Center Drive, Rancho Cucamonga, CA 91739. Information regarding the facility owner's compliance history submitted to the AQMD pursuant to the California Health & Safety Code Section 42336, or otherwise known to the AQMD based on credible information, is also available from the AQMD for public review. Anyone wishing to comment on the proposed issuance of this permit should submit their comments by August 31, 2008. If you are concerned primarily about zoning decisions and the process by which the facility has been sited at this location, you should contact your local city or county planning department. Please submit comments related to air quality to Mr. Kien Huynh, Air Quality Engineer, Chemical/Mechanical Operations, Engineering and Compliance, South Coast Air Quality Management District, 21865 Copley Drive, Diamond Bar, CA 91765. For additional information, please call Mr. Kien Huynh at (909) 396-2635.

For your general information, anyone experiencing air quality problems such as dust or odor can telephone in a complaint to the AQMD by calling 1-800-CUT-SMOG (1-800-288-7664).

Proposed Revision to Title V Permit

This is an existing facility applying for a revision to their Title V permit. This project is considered a significant permit revision due to the cumulative emissions of VOC, NOx and CO from this project since the issuance of the Title V renewal permit.

As required by Title V of the federal Clean Air Act, the AQMD will revise the existing Title V permit of this facility to reflect the modification and change of permit conditions for the electric arc furnace, the operation of the existing baghouse and the installation of the new baghouse to replace the existing baghouse. The revised Title V permit shall include all of the emission limits and operating conditions in the proposed Permits to Construct and Operate for the above mentioned equipment. The facility shall be required to certify compliance with the revised Title V permit in addition to recordkeeping and mandatory reporting of any violations of the permit conditions. The Title V permit shall be enforceable by the AQMD, by the federal government, and by citizens.

The public may request the AQMD to conduct a public hearing on the proposed Title V permit by submitting a Hearing Request Form (Form 500-G) to Mr. Kien Huynh of the AQMD. The AQMD will hold a public hearing if there is evidence that the proposed Title V permit is incorrect or inadequate to ensure compliance with regulatory requirements, and that a public hearing will likely provide additional information that will affect the drafting and/or issuance of the permit. Public hearing request forms and the schedule of public hearings may be obtained from the AQMD by calling the Title V hotline at (909) 396-3013 or downloading from the Internet at <http://www.aqmd.gov/titlev>. The public must submit hearing requests by August 15, 2008 to the AQMD, and must send a copy of the hearing request by first class mail to Mr. Matthew Jalali, Vice President of Environmental Affairs, TAMCO, 12459-B Arrow Route, Rancho Cucamonga, CA 91739.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Title V Permit Summary

AQMD Facility ID: 18931		Company Name: TAMCO	
Equipment Location: 12459-B ARROW ROUTE, RANCHO CUCAMONGA, CA 91739			SIC Code: 3312
Permit Revision #:	Revision Date:	Facility Permit Section(s) Affected: D & H	
Application #(s): 477988		Application Submittal Date(s): 2/8/2008	
AQMD Contact Person: Kien Huynh		Phone #: (909) 396-2635	E-Mail Address: khuynh@aqmd.gov
Project Description: The facility recycles ferrous scrap metal into concrete reinforcing bars (rebar). The company modified the electric arc furnace by installing natural gas fired oxy-fuel burners. The company is also proposing to install a new baghouse and change permit conditions on the furnace to increase the metal throughput limit currently allowed			
Permit Type: <input type="checkbox"/> Initial Title V Permit <input checked="" type="checkbox"/> Significant Revision <input type="checkbox"/> Permit Renewal			
Permit Features: <input type="checkbox"/> Federally Enforceable Emission Cap For Exemption From Certain NESHAP Requirements <input type="checkbox"/> Permit Shield Applies <input checked="" type="checkbox"/> Permit Contains Conditions Allowing Emission Trading <input type="checkbox"/> Alternative Operating Scenario <input type="checkbox"/> Permit Streamlines Overlapping or Outdated Requirements <input type="checkbox"/> Other: _____ <input type="checkbox"/> Source Out of Compliance With Applicable Requirements and/or Operating Under a Variance			
Toxic Air Contaminant Emissions (TAC) - Annual Reported Emissions for Reporting Year: 2005-2006		<input type="checkbox"/> No TACs Reported <input checked="" type="checkbox"/> The Following TACs Were Reported: See Attached Table 1 <u>Emissions (lbs/yr):</u>	
Health Risk From Toxic Air Contaminants:		<input type="checkbox"/> Health Risk Assessment Required for this Permit Action (AQMD Rule 1401) <input type="checkbox"/> Health Risk Reduction Plan Approved (AQMD Rule 1402) (Year): _____ <input checked="" type="checkbox"/> Facility is Subject to Review by the Air Toxics Information and Assessment Act (AB2588) <input type="checkbox"/> Facility Determined to be Exempt from AB2588 Requirements <input type="checkbox"/> AQMD is Tracking Status of Facility under AB2588 <input type="checkbox"/> Health Risk Assessment Submittal Pending <input type="checkbox"/> Health Risk Assessment Submitted to AQMD and Is Being Reviewed <input checked="" type="checkbox"/> Final Facility Health Risk Approved (date) 2001 Cancer Risk = <u>2.04 in one million</u> Acute Hazard Index = <u>0.01</u> Chronic Hazard Index = <u>0.24</u>	
Criteria Pollutant Emissions		<input checked="" type="checkbox"/> NOx 67.370 <input checked="" type="checkbox"/> PM 95.190 <input checked="" type="checkbox"/> CO 454.254 <input checked="" type="checkbox"/> SOx 0.359 (tons/year) for Reporting Year: 2006-2007 <input checked="" type="checkbox"/> VOC 4.104 <input type="checkbox"/> Other: _____	
Compliance History:		<input type="checkbox"/> Citizen Complaints Filed in Last Two Calendar Years (#) <input checked="" type="checkbox"/> Notices to Comply Issued in Last Two Calendar Years (#) <input checked="" type="checkbox"/> Notices of Violation Issued in Last Two Calendar Years (#)	
All issues associated with the above notices have been resolved.			

7/25/2008

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**Title V Permit Summary****Table 1****TOXIC AIR CONTAMINANT EMISSIONS (TAC)****Tamco ID 18931****2006 - 2007 Reporting Year**

TAC Names	Emissions, lbs/yr
1,1,2,2-Tetrachloroethane	0.103
1,1,2-Trichloroethane	0.081
1,2,4-Trimethylbenzene	0.162
1,2-Dichloropropane {Propylene dichloride}	0.069
Butadiene [1,3]	3.468
1,3-Dichloropropene	0.068
2-Methyl naphthalene [PAH, POM]	0.085
Acenaphthene	0.003
Acenaphthylene	0.014
Acetaldehyde	33.047
Acrolein	14.941
Ammonia	18965.509
Arsenic	0.019
Benzo[g,h,i]perylene	0.001
Benzene	7.717
Benzo[b]fluoranthene	< 0.001
Benzo[e]pyrene	0.001
Cadmium	78.26
Carbon tetrachloride	0.094
Chlorine	3607.851
Chloroform	0.073
Chromium, hexavalent (and compounds)	6.956
Chrysene	0.001
Copper	317.364
Diesel engine exhaust, particulate matter	415.735
Ethyl benzene	4.089
Ethylene dibromide	0.114
Ethylene dichloride	0.06
Fluoranthene	0.002
Fluorene	0.014
Formaldehyde	164.741
Hexane	5.756
Hydrochloric acid	2.311
Lead (inorganic)	130.505
m-Xylene	0.443
Methyl tert-butyl ether	0.185
Manganese	2260.353
Mercury	0.024
Methanol	6.521
Methyl ethyl ketone	0.005
Methylene chloride	0.051

Naphthalene	0.764
Nickel	0.048
PAHs, total, w/o individ. components reported [PAH, POM]	0.554
Phenanthrene	0.026
Pyrene	0.003
Selenium	0.027
Styrene	0.073
Toluene	17.379
Vinyl chloride	0.038
Xylenes	11.663
o-Xylene	0.154

FACILITY PERMIT TO OPERATE TAMCO

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : PRE-HEATING					
HEATER, LADLE, NATURAL GAS, 5 MMBTU/HR A/N: 310966	D1		NOX: PROCESS UNIT**	CO: 2000 PPMV (5A) [RULE 407,4-2-1982] ; NOX: 130 LBS/MMSCF NATURAL GAS (1) [RULE 2012,5-6-2005] ; PM: (9) [RULE 405,2-7-1986] PM: 0.1 GRAINS/SCF (5) [RULE 409,8-7-1981]	D323.2
HEATER, LADLE, NATURAL GAS, 5 MMBTU/HR A/N: 310965	D2		NOX: PROCESS UNIT**	CO: 2000 PPMV (5A) [RULE 407,4-2-1982] ; NOX: 130 LBS/MMSCF NATURAL GAS (1) [RULE 2012,5-6-2005] ; PM: (9) [RULE 405,2-7-1986] PM: 0.1 GRAINS/SCF (5) [RULE 409,8-7-1981]	D323.2
HEATER, LADLE, NATURAL GAS, WITH LOW NOX BURNER, 5 MMBTU/HR WITH A/N: 274588	D3		NOX: PROCESS UNIT**	CO: 2000 PPMV (5A) [RULE 407,4-2-1982] ; NOX: 65 LBS/MMSCF NATURAL GAS (1) [RULE 2012,5-6-2005] ; NOX: 65 LBS/MMSCF NATURAL GAS (4) [RULE 2005,5-6-2005] PM: 0.1 GRAINS/SCF (5) [RULE 409,8-7-1981] ; PM: (9) [RULE 405,2-7-1986]	D323.2

* (1)(1A)(1B) Denotes RECLAIM emission factor
(3) Denotes RECLAIM concentration limit
(5)(5A)(5B) Denotes command and control emission limit
(7) Denotes NSR applicability limit
(9) See App B for Emission Limits
(2)(2A)(2B) Denotes RECLAIM emission rate
(4) Denotes BACT emission limit
(6) Denotes air toxic control rule limit
(8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
(10) See Section J for NESHAP/MACT requirements
** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TAMCO

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : PRE-HEATING					
BURNER, NATURAL GAS, NORTH AMERICAN, MODEL 4315-8B, WITH LOW NOX BURNER, 5 MMBTU/HR					
Process 2 : METAL MELTING					
FURNACE, ELECTRIC, ARC TYPE, SCRAP STEEL, 120 TON CAPACITY, 100000 KVA; 62.4 MMBTU/HR WITH A/N: 371370 BURNER, OXY-FUEL, AMERICAN COMBUSTION, MODEL 16-AMOPJ3774NE, WITH LOW NOX BURNER, 4 TOTAL; 15.6 MMBTU/HR	D4	C5	NOX: MAJOR SOURCE**	PM: (9) [RULE 405,2-7-1986] ; PM: 0.005 GRAINS/SCF (8) [40CFR 60 Subpart AA,2-22-2005]	C1.2, C409.1, D12.3, D323.3, E71.4, E71.6, E448.3
BAGHOUSE, WHEELABRATOR, MODEL 264, 9 COMPARTMENTS, WITH 29,256 SQ. FT. FILTER AREA EACH COMPARTMENT WITH A/N: TOWER, SPRAY, WITH 8 WATER SPRAY NOZZLES CONVEYOR, SCREW	C5 D67 D6	D4		PM: (9) [RULE 404,2-7-1986] PM: (9) [RULE 405,2-7-1986]	D12.4, D28.1, D322.1, D381.2, E71.2, E71.3, E193.1, E448.2, K40.1, K67.2

- * (1)(1A)(1B) Denotes RECLAIM emission factor
(3) Denotes RECLAIM concentration limit
(5)(5A)(5B) Denotes command and control emission limit
(7) Denotes NSR applicability limit
(9) See App B for Emission Limits

- (2)(2A)(2B) Denotes RECLAIM emission rate
(4) Denotes BACT emission limit
(6) Denotes air toxic control rule limit
(8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
(10) See Section J for NESHAP/MACT requirements

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TAMCO

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 3 : RE-HEATING					
FURNACE, BILLET HEATING, NATURAL GAS, WITH LOW NOX BURNER, FLUE GAS RECIRCULATION, 120.4 MMBTU/HR WITH A/N: 313809 BURNER, NATURAL GAS, NORTH AMERICAN MFG., MODEL 4316, PREHEAT ZONE, WITH LOW NOX BURNER, 2 TOTAL; 13.25 MMBTU/HR BURNER, NATURAL GAS, NORTH AMERICAN MFG., MODEL 4316, PREHEAT ZONE, WITH LOW NOX BURNER, 2 TOTAL; 14.8 MMBTU/HR BURNER, NATURAL GAS, NORTH AMERICAN MFG. , MODEL 4316, HEATING ZONE, WITH LOW NOX BURNER, 2 TOTAL; 9.3 MMBTU/HR BURNER, NATURAL GAS, NORTH AMERICAN MFG., MODEL 4316, HEATING ZONE, WITH LOW NOX BURNER, 2 TOTAL; 11.85 MMBTU/HR	D7		NOX: MAJOR SOURCE**	CO: 2000 PPMV (5A) [RULE 407,4-2-1982] ; PM: 0.1 GRAINS/SCF (5) [RULE 409,8-7-1981] ; PM: (9) [RULE 404,2-7-1986]	C1.3, D12.1

* (1)(1A)(1B) Denotes RECLAIM emission factor
(3) Denotes RECLAIM concentration limit
(5)(5A)(5B) Denotes command and control emission limit
(7) Denotes NSR applicability limit
(9) See App B for Emission Limits
(2)(2A)(2B) Denotes RECLAIM emission rate
(4) Denotes BACT emission limit
(6) Denotes air toxic control rule limit
(8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS, etc.)
(10) See Section J for NESHAP/MACT requirements
** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TAMCO

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 3 : RE-HEATING					
BURNER, NATURAL GAS, NORTH AMERICAN MFG., MODEL 4316, BOTTOM SOAK, WITH LOW NOX BURNER, 2 TOTAL; 6.05 MMBTU/HR					
BURNER, NATURAL GAS, NORTH AMERICAN MFG., MODEL 4316, SOAK ZONE, WITH LOW NOX BURNER, 3 TOTAL; 3.3 MMBTU/HR					
Process 4 : MATERIAL STORAGE					
System 1 : LIME STORAGE					
STORAGE SILO, LIME, 12,000 CUBIC FEET, WITH FABRIC FILTER A/N: 00443B	D8			PM: (9) [RULE 404,2-7-1986;RULE 405,2-7-1986]	D322.1, D381.1, E71.1, K67.2
System 2 : DOLOMITE RECEIVING AND STORAGE					
STORAGE SILO, DOLOMITE, 4,800 CU. FT., WITH FABRIC FILTER A/N: 458462	D46			PM: (9) [RULE 404,2-7-1986;RULE 405,2-7-1986]	C1.5, D322.1, D381.1, E184.1, K67.2
Process 6 : FUEL STORAGE & DISPENSING					
STORAGE TANK, GASOLINE A/N: 154532	D14				D330.1, J109.1

- * (1)(1A)(1B) Denotes RECLAIM emission factor
(3) Denotes RECLAIM concentration limit
(5)(5A)(5B) Denotes command and control emission limit
(7) Denotes NSR applicability limit
(9) See App B for Emission Limits
- (2)(2A)(2B) Denotes RECLAIM emission rate
(4) Denotes BACT emission limit
(6) Denotes air toxic control rule limit
(8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS, etc.)
(10) See Section J for NESHAP/MACT requirements

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TAMCO

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 6 : FUEL STORAGE & DISPENSING					
FUEL DISPENSING NOZZLE, BALANCE TYPE PHASE II CONTROL, GASOLINE, WITH VAPOR LOCK BALANCE RECOVERY SYSTEM A/N: 154532	D15				D330.1, J110.1
Process 7 : INTERNAL COMBUSTION ENGINE					
INTERNAL COMBUSTION ENGINE, EMERGENCY POWER, DIESEL FUEL, CUMMINS, MODEL NTA855-G1, WITH TURBOCHARGER, 425 BHP A/N: 316128	D37		NOX: PROCESS UNIT**	NOX: 469 LBS/1000 GAL DIESEL (1) [RULE 2012,5-6- 2005] ; PM: (9) [RULE 404,2- 7-1986]	D12.2, E448.1, K67.4
INTERNAL COMBUSTION ENGINE, EMERGENCY POWER, DIESEL FUEL, DETROIT, MODEL 1063-7005, 189 BHP A/N: 316129	D39		NOX: PROCESS UNIT**	NOX: 469 LBS/1000 GAL DIESEL (1) [RULE 2012,5-6- 2005] ; PM: (9) [RULE 404,2- 7-1986]	D12.2, E448.1, K67.4
INTERNAL COMBUSTION ENGINE, EMERGENCY POWER, DIESEL FUEL, DETROIT DIESEL, MODEL 1063-7305, WITH AFTERCOOLER, TURBOCHARGER, 330 BHP A/N: 328590	D41		NOX: PROCESS UNIT**	NOX: 469 LBS/1000 GAL DIESEL (1) [RULE 2012,5-6- 2005] ; PM: (9) [RULE 404,2- 7-1986]	D12.2, E448.1, K67.4
INTERNAL COMBUSTION ENGINE, EMERGENCY POWER, RICH BURN, NATURAL GAS, CUMMINS, MODEL GV12-525-IPG, 400 BHP A/N: 443929	D45		NOX: PROCESS UNIT**	CO: 2 GRAM/BHP-HR NATURAL GAS (4) [RULE 1303(a)(1)-BACT,5-10-1996;RULE 1303(a)(1)-BACT,12-6-2002] ; NOX: 1.5 GRAM/BHP-HR NATURAL GAS (1) [RULE 2012,5-6-2005]	D12.2, E115.1, E448.1, K67.4

- * (1)(1A)(1B) Denotes RECLAIM emission factor
(3) Denotes RECLAIM concentration limit
(5)(5A)(5B) Denotes command and control emission limit
(7) Denotes NSR applicability limit
(9) See App B for Emission Limits
- (2)(2A)(2B) Denotes RECLAIM emission rate
(4) Denotes BACT emission limit
(6) Denotes air toxic control rule limit
(8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
(10) See Section J for NESHAP/MACT requirements

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TAMCO

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 7 : INTERNAL COMBUSTION ENGINE					
				NOX: 1.5 GRAM/BHP-HR NATURAL GAS (4) [RULE 2005,5-6-2005] ; PM: (9) [RULE 404,2-7-1986] ; ROG: 1.5 GRAM/BHP-HR NATURAL GAS (4) [RULE 1303(a)(1)- BACT,5-10-1996 <i>RULE 1303(a)(1)-BACT,12-6- 2002]</i>	
Process 8 : R-219 EXEMPT EQUIPMENT SUBJECT TO SOURCE-SPECIFIC RULES					
RULE 219 EXEMPT EQUIPMENT, COOLING TOWERS	E42				H23.1
RULE 219 EXEMPT EQUIPMENT, COATING EQUIPMENT, PORTABLE, ARCHITECTURAL COATINGS	E43			ROG: (9) [RULE 1113,11-8- 1996;RULE 1113, 7-13-2007;RULE 1171,11-7-2003;RULE 1171, 2-1- 2008]	K67.3
RULE 219 EXEMPT EQUIPMENT, REFRIGERATION UNITS	E51				H23.2
RULE 219 EXEMPT EQUIPMENT, REFRIGERANT RECOVERY AND/OR RECYCLING UNITS,	E52				H23.2

* (1)(1A)(1B) Denotes RECLAIM emission factor
(3) Denotes RECLAIM concentration limit
(5)(5A)(5B) Denotes command and control emission limit
(7) Denotes NSR applicability limit
(9) See App B for Emission Limits
(2)(2A)(2B) Denotes RECLAIM emission rate
(4) Denotes BACT emission limit
(6) Denotes air toxic control rule limit
(8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS, etc.)
(10) See Section J for NESHAP/MACT requirements

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TAMCO

SECTION D: DEVICE ID INDEX

**The following sub-section provides an index
to the devices that make up the facility
description sorted by device ID.**

FACILITY PERMIT TO OPERATE TAMCO

SECTION D: DEVICE ID INDEX

Device Index For Section D			
Device ID	Section D Page No.	Process	System
D1	1	1	0
D2	1	1	0
D3	1	1	0
D4	2	2	0
C5	2	2	0
D6	2	2	0
D7	3	3	0
D8	4	4	1
D14	4	6	0
D15	5	6	0
D37	5	7	0
D39	5	7	0
D41	5	7	0
E42	6	8	0
E43	6	8	0
D45	5	7	0
D46	4	4	2
E51	6	8	0
E52	6	8	0
D67	2	2	0

FACILITY PERMIT TO OPERATE TAMCO

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

FACILITY CONDITIONS

- F5.1 The following conditions shall apply to operations with lead containing materials and housekeeping practices for fugitive lead-dust emissions at this facility:

Dust-forming material which may contain lead, including but not limited to baghouse dust, dross, ash, or feed material, shall be stored in closed containers in enclosed storage areas

Surfaces upon which lead-containing dust accumulates and which are subject to vehicular or foot traffic shall be either washed down, vacuum-cleaned, or wet-mopped at least once a week, or shall be maintained with the use of non-toxic chemical dust suppressants

Lead or lead-containing wastes generated from housekeeping activities shall be stored, disposed of, recovered, or recycled using practices that do not lead to fugitive lead-dust emissions

Records of the quantities of each lead-containing material processed, and the lead content of the material shall be maintained. The records shall include but not limited to purchase records, usage records, results of analysis or other verification to indicate lead content and lead usage. The records shall be kept for at least the last five years, and made available to District personnel upon request

Records of housekeeping activities, and inspection and maintenance of emission collection system(s) and control device(s) shall be maintained. The records shall include the name of the person performing the activity, description of the activity, and the dates on which the specific activity was completed. The records shall be kept for at least the last five years, and made available to District personnel upon request

[RULE 1420, 9-11-1992]

- F9.1 Except for open abrasive blasting operations, the operator shall not discharge into the atmosphere from any single source of emissions whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour which is:

(a) As dark or darker in shade as that designated No.1 on the Ringelmann Chart, as published by the United States Bureau of Mines; or

(b) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subparagraph (a) of this condition.

[RULE 401, 3-2-1984; RULE 401, 11-9-2001]

FACILITY PERMIT TO OPERATE TAMCO

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

- F14.1 The operator shall not purchase diesel fuel containing sulfur compounds in excess of 15 ppm by weight as supplied by the supplier.

[RULE 431.2, 9-15-2000]

- F14.2 The operator shall not use fuel oil containing sulfur compounds in excess of 0.05 percent by weight.

[RULE 431.2, 5-4-1990; RULE 431.2, 9-15-2000]

DEVICE CONDITIONS

C. Throughput or Operating Parameter Limits

- C1.2 The operator shall limit the material processed to no more than 51210 ton(s) in any one calendar month.

For the purpose of this condition, material processed shall be defined as scrap metal.

The operator shall maintain records in a manner approved by the District, to demonstrate compliance with this condition.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D4]

- C1.3 The operator shall limit the natural gas fuel usage to no more than 2.2 MM cubic feet per day.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D7]

- C1.5 The operator shall limit the throughput to no more than 2100 ton(s) in any one calendar month.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D46]

FACILITY PERMIT TO OPERATE TAMCO

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

C409.1 The operator shall ensure that oil filters used in this equipment shall meet the following specified requirements:

The amount of oil filters used shall not exceed 750 tons in any one calendar month.

Oil filters shall be drained and crushed prior to being used in this equipment.

Records on the amount of oil filters used shall be maintained, in a manner approved by the District, to demonstrate compliance with this condition.

[**RULE 1303(b)(2)-Offset, 5-10-1996**; **RULE 1303(b)(2)-Offset, 12-6-2002**; **RULE 401, 3-2-1984**; **RULE 401, 11-9-2001**]

[Devices subject to this condition : D4]

D. Monitoring/Testing Requirements

D12.1 The operator shall install and maintain a(n) non-resettable totalizing fuel meter to accurately indicate the fuel usage of the billet heating furnace.

[**RULE 1303(b)(2)-Offset, 5-10-1996**; **RULE 1303(b)(2)-Offset, 12-6-2002**]

[Devices subject to this condition : D7]

D12.2 The operator shall install and maintain a(n) timer to accurately indicate the elapsed operating time of the engine.

[**RULE 1110.2, 2-1-2008**; **RULE 1304(a)-Modeling and Offset Exemption, 6-14-1996**; **RULE 2012, 5-6-2005**]

[Devices subject to this condition : D37, D39, D41, D45]

D12.3 The operator shall install and maintain a(n) temperature gauge to accurately indicate the temperature at the exit of the water cooled elbow in the exhaust system.

[**RULE 1303(a)(1)-BACT, 5-10-1996**; **RULE 1303(a)(1)-BACT, 12-6-2002**]

[Devices subject to this condition : D4]

FACILITY PERMIT TO OPERATE TAMCO

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

D12.4 The operator shall install and maintain a(n) differential pressure gauge to accurately indicate the differential pressure across the the filter bags.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : C5]

D28.1 The operator shall conduct source test(s) in accordance with the following specifications:

The test shall be conducted at least once during the life of the permit.

The test shall be conducted to determine the total PM emissions at the outlet.

The test shall be conducted to determine the PM emissions using EPA method 5D measured over a 60 minute averaging time period.

Source test shall be conducted when this equipment is operating at maximum load.

The District shall be notified of the date and time of the test at least 14 days prior to the test.

[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition : C5]

D322.1 The operator shall perform annual inspection of the equipment and filter media for leaks, broken or torn filter media, and improperly installed filter media.

[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition : C5, D8, D46]

FACILITY PERMIT TO OPERATE TAMCO

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

D323.2 The operator shall conduct an inspection for visible emissions from all stacks and other emission points of this equipment whenever there is a public complaint of visible emissions, whenever visible emissions are observed, and on an annual basis, at least, unless the equipment did not operate during the entire annual period. The routine annual inspection shall be conducted while the equipment is in operation and during daylight hours.

If any visible emissions (not including condensed water vapor) are detected that last more than three minutes in any one hour, the operator shall verify and certify within 24 hours that the equipment causing the emission and any associated air pollution control equipment are operating normally according to their design and standard procedures and under the same conditions under which compliance was achieved in the past, and either:

- 1). Take corrective action(s) that eliminates the visible emissions within 24 hours and report the visible emissions as a potential deviation in accordance with the reporting requirements in Section K of this permit; or
- 2). Have a CARB-certified smoke reader determine compliance with the opacity standard, using EPA Method 9 or the procedures in the CARB manual "Visible Emission Evaluation", within three business days and report any deviations to AQMD.

The operator shall keep the records in accordance with the recordkeeping requirements in Section K of this permit and the following records:

- 1). Stack or emission point identification;
- 2). Description of any corrective actions taken to abate visible emissions;
- 3). Date and time visible emission was abated; and
- 4). All visible emission observation records by operator or a certified smoke reader.

[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition : D1, D2, D3]

FACILITY PERMIT TO OPERATE TAMCO

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

D323.3 The operator shall conduct an inspection for visible emissions from all stacks and other emission points of this equipment whenever there is a public complaint of visible emissions, whenever visible emissions are observed, and on a semi-annual basis, at least, unless the equipment did not operate during the entire semi-annual period. The routine semi-annual inspection shall be conducted while the equipment is in operation and during daylight hours.

If any visible emissions (not including condensed water vapor) are detected that last more than three minutes in any one hour, the operator shall verify and certify within 24 hours that the equipment causing the emission and any associated air pollution control equipment are operating normally according to their design and standard procedures and under the same conditions under which compliance was achieved in the past, and either:

- 1). Take corrective action(s) that eliminates the visible emissions within 24 hours and report the visible emissions as a potential deviation in accordance with the reporting requirements in Section K of this permit; or
- 2). Have a CARB-certified smoke reader determine compliance with the opacity standard, using EPA Method 9 or the procedures in the CARB manual "Visible Emission Evaluation", within three business days and report any deviations to AQMD.

The operator shall keep the records in accordance with the recordkeeping requirements in Section K of this permit and the following records:

- 1). Stack or emission point identification;
- 2). Description of any corrective actions taken to abate visible emissions;
- 3). Date and time visible emission was abated; and
- 4). All visible emission observation records by operator or a certified smoke reader.

[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition : D4]

FACILITY PERMIT TO OPERATE TAMCO

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

- D330.1 The operator shall have a person that has been trained in accordance with Rule 461(d)(5) conduct a semi-annual inspection of the gasoline transfer and dispensing equipment. The first inspection shall be in accordance with Rule 461, Attachment B, the second inspection shall be in accordance with Rule 461, Attachment C, and the subsequent inspections shall alternate protocols. The operator shall keep records of the inspection and the repairs in accordance to Rule 461 and Section K of this Permit.

[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition : D14, D15]

- D381.1 The operator shall conduct an inspection for visible emissions from all stacks and other emission points of this equipment whenever there is a public complaint of visible emissions, whenever visible emissions are observed, and on an annual basis, at least, unless the equipment did not operate during the entire annual period. The routine annual inspection shall be conducted while the equipment is in operation and during daylight hours. If any visible emissions (not including condensed water vapor) are detected, the operator shall take corrective action(s) that eliminates the visible emissions within 24 hours and report the visible emissions as a potential deviation in accordance with the reporting requirements in Section K of this permit.

The operator shall keep the records in accordance with the recordkeeping requirements in Section K of this permit and the following records:

- 1). Stack or emission point identification;
- 2). Description of any corrective actions taken to abate visible emissions; and
- 3). Date and time visible emission was abated.

[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition : D8, D46]

FACILITY PERMIT TO OPERATE TAMCO

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

D381.2 The operator shall conduct an inspection for visible emissions from all stacks and other emission points of this equipment whenever there is a public complaint of visible emissions, whenever visible emissions are observed, and on a quarterly basis, at least, unless the equipment did not operate during the entire quarterly period. The routine quarterly inspection shall be conducted while the equipment is in operation and during daylight hours. If any visible emissions (not including condensed water vapor) are detected, the operator shall take corrective action(s) that eliminates the visible emissions within 24 hours and report the visible emissions as a potential deviation in accordance with the reporting requirements in Section K of this permit.

The operator shall keep the records in accordance with the recordkeeping requirements in Section K of this permit and the following records:

- 1). Stack or emission point identification;
- 2). Description of any corrective actions taken to abate visible emissions; and
- 3). Date and time visible emission was abated.

[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition : C5]

E. Equipment Operation/Construction Requirements

E71.1 The operator shall not use this equipment if more than one loading pump is operating at one time.

[RULE 401, 3-2-1984; RULE 401, 11-9-2001]

[Devices subject to this condition : D8]

E71.2 The operator shall not operate this equipment if the opacity of the exhaust gases from the baghouse is 3 percent or greater.

[40CFR 60 Subpart AA, 2-22-2005]

[Devices subject to this condition : C5]

FACILITY PERMIT TO OPERATE TAMCO

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

- E71.3 The operator shall not operate this equipment if the opacity of the gases from the screw conveyor is 10 percent or greater.

[40CFR 60 Subpart AA, 2-22-2005]

[Devices subject to this condition : C5]

- E71.4 The operator shall only charge drained and crushed oil filters to this equipment during the portion of the operation which produces the maximum temperature at the exit of the water cooled elbow.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D4]

- E71.6 The operator shall not operate this equipment if the opacity of the gases from the furnace building is 6 percent or greater.

[40CFR 63 Subpart YYYYY, 12-28-2007]

[Devices subject to this condition : D4]

- E115.1 The operator shall maintain an automatic air-to-fuel ratio controller so as to regulate the air-to-fuel ratio within tolerance limits as recommended by the catalyst supplier or manufacturer.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 2005, 5-6-2005]

[Devices subject to this condition : D45]

- E184.1 The operator shall thoroughly clean the filters in the filter vents immediately after each load of material is received.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : D46]

FACILITY PERMIT TO OPERATE TAMCO

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

E193.1 The operator shall operate and maintain this equipment according to the following requirements:

The baghouse pressure differential across the filter bags shall be maintained between 4" and 20" of water column whenever the equipment it serves is in operation.

The operator shall operate and maintain a pressure differential gauge to measure and indicate the pressure differential across the baghouse filter bags pursuant to the operation and maintenance requirements in 40 CFR Part 64.7. The pressure differential across the filters shall be recorded continuously.

For the purpose of this condition, a deviation shall be defined as when the pressure differential across the filters is less than 4" of water column or more than 20" of water column occurs during the normal operation of the equipment it serves.

Whenever a deviation occurs, the operator shall inspect this equipment to identify the cause of such a deviation, take immediate corrective action to maintain the pressure differential across the filters between 4" and 20" of water column, and keep records of the duration and cause (including unknown cause, if applicable) of the deviation and the corrective actions taken.

All deviations shall be reported to the AQMD on a semi-annual basis pursuant to the requirements specified in 40 CFR Part 64.9 and Condition Nos. 22 and 23 in Section K of this permit. The semi-annual monitoring report shall include the total operating time of this equipment and the total accumulated duration of all deviations for each semi-annual reporting period specified in Condition No. 23 in Section K of this permit.

The operator shall submit an application with an Quality Improvement Plan (QIP) in accordance with 40 CFR Part 64.8 to the AQMD if more than six deviations occur in any semi-annual reporting period specified in Condition No. 23 in Section K of this permit. The required QIP shall be submitted to the AQMD within 90 calendar days after the due date for the semi-annual monitoring report.

The operator shall inspect and maintain all components of this equipment on an annual basis in accordance with the manufacturer's specifications.

The operator shall keep adequate records in a format that is acceptable to the AQMD to demonstrate compliance with all applicable requirements specified in this condition and 40 CFR Part 64.9 for a minimum of five years.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997; 40CFR Part 64, 10-22-1997]

[Devices subject to this condition : C5]

FACILITY PERMIT TO OPERATE TAMCO

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

E448.1 The operator shall comply with the following requirements:

The engine shall not be operated more than 200 hours in any one year, which includes no more than 50 hours in any one year for maintenance and testing.

Operation beyond the 50 hours per year allotted for engine maintenance and testing shall be allowed only in the event of a loss of grid power or up to 30 minutes prior to a rotating outage, provided that the utility distribution company has ordered rotating outages in the control area where the engine is located or has indicated that it expects to issue such an order at a certain time, and the engine is located in a utility service block that is subject to the rotating outage.

Engine operation shall be terminated immediately after the utility distribution company advises that a rotating outage is no longer imminent or in effect.

This engine shall not be used as part of an interruptible service contract in which a facility receives a payment or reduced rates in return for reducing electric load on the grid when requested to so by the utility or the grid operator.

[RULE 1110.2, 2-1-2008; **RULE 1304(a)-Modeling and Offset Exemption, 6-14-1996**; RULE 1470, 6-1-2007]

[Devices subject to this condition : D37, D39, D41, D45]

E448.2 The operator shall comply with the following requirements:

Dust collected in the baghouse shall be discharged only into enclosed containers or returned to process and shall not be handled in a manner that may result in the re-release of collected materials to the atmosphere.

[**RULE 1303(a)(1)-BACT, 5-10-1996**; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : C5]

E448.3 The operator shall comply with the following requirements:

The operator shall only purchase motor scrap from scrap providers who participate in an EPA approved program for removal of mercury switches.

[**40CFR 63 Subpart YYYYYY, 12-28-2007**]

[Devices subject to this condition : D4]

FACILITY PERMIT TO OPERATE TAMCO

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

H. Applicable Rules

H23.1 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
Chromium, Hexavalent	District Rule	1404

[RULE 1404, 4-6-1990]

[Devices subject to this condition : E42]

H23.2 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
Refrigerants	District Rule	1411
Refrigerants	District Rule	1415
Refrigerants	40CFR82, SUBPART	B
Refrigerants	40CFR82, SUBPART	F

[RULE 1411, 3-1-1991; RULE 1415, 10-14-1994; 40CFR 82 Subpart B, 7-14-1992; 40CFR 82 Subpart F, 5-14-1993]

[Devices subject to this condition : E51, E52]

J. Rule 461

FACILITY PERMIT TO OPERATE TAMCO

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

- J109.1 The operator shall use, except for diesel transfer, the phase I vapor recovery system in full operation whenever this equipment is in use. This system shall be installed, operated and maintained to meet all CARB certification requirements.

[RULE 461, 3-7-2008]

[Devices subject to this condition : D14]

- J110.1 The operator shall use, except for diesel transfer, the phase II vapor recovery system in full operation whenever gasoline from this equipment is dispensed to motor vehicles as defined in Rule 461. This system shall be installed, operated and maintained to meet all CARB certification requirements.

[RULE 461, 3-7-2008]

[Devices subject to this condition : D15]

K. Record Keeping/Reporting

- K40.1 The operator shall provide to the District a source test report in accordance with the following specifications:

Source test results shall be submitted to the District no later than 60 days after the source test was conducted.

Emission data shall be expressed in terms of mass rate (lbs/hr). In addition, solid PM emissions, if required to be tested, shall also be reported in terms of grains per DSCF.

All exhaust flow rate shall be expressed in terms of dry standard cubic feet per minute (DSCFM) and dry actual cubic feet per minute (DACFM).

[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition : C5]

FACILITY PERMIT TO OPERATE TAMCO

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

K67.2 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

The name of the person performing the inspection and/or maintenance of the filter media

The date, time and results of the inspection

The date, time and description of any maintenance or repairs resulting from the inspection

[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition : C5, D8, D46]

K67.3 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

For architectural applications where no thinners, reducers, or other VOC containing materials are added, maintain semi-annual records for all coating consisting of (a) coating type, (b) VOC content as supplied in grams per liter (g/l) of materials for low-solids coatings, (c) VOC content as supplied in g/l of coating, less water and exempt solvent, for other coatings.

For architectural applications where thinners, reducers, or other VOC containing materials are added, maintain daily records for each coating consisting of (a) coating type, (b) VOC content as applied in grams per liter (g/l) of materials used for low-solids coatings, (c) VOC content as applied in g/l of coating, less water and exempt solvent, for other coatings.

[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition : E43]

FACILITY PERMIT TO OPERATE TAMCO

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

K67.4 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

The engine operating log shall be kept and maintained on file to record when the engine is started manually. The log shall list the date of operation, the timer reading in hours at the beginning and end of operation, and the reason for operation.

By January 15th of each year, the operator shall total and record the total hours of operation (including hours for both manual and automatic operation) for the previous calendar year.

The records shall be maintained on file for at least the last five years, and made available to District personnel upon request.

[RULE 1110.2, 2-1-2008; **RULE 1304(a)-Modeling and Offset Exemption, 6-14-1996**; RULE 1470, 6-1-2007]

[Devices subject to this condition : D37, D39, D41, D45]

FACILITY PERMIT TO OPERATE TAMCO

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 2 : METAL MELTING					
FURNACE, ELECTRIC, ARC TYPE, SCRAP STEEL, 120 TON CAPACITY, 100000 KVA; 62.4 MMBTU/HR WITH A/N: BURNER, OXY-FUEL, AMERICAN COMBUSTION, MODEL 16-AMOPJ3774NE, WITH LOW NOX BURNER, 4 TOTAL; 15.6 MMBTU/HR	D4	C53	NOX: MAJOR SOURCE**	CO: 2000 PPMV (5) [RULE 407,4-2-1982] ; PM: (9) [RULE 405,2-7-1986] ; PM: 0.1 GRAINS/SCF (5) [RULE 409,8-7-1981] PM: 0.005 GRAINS/SCF (8) [40CFR 60 Subpart AA,2-22-2005;40CFR 63 Subpart YYYYYY,12-28-2007]	A63.1, C1.7, C1.9, C409.1, D12.3, D323.3, E71.4, E71.6, E448.3
BAGHOUSE, WITH 3 CANOPY DAMPERS, MIKROPUL, MODEL 360-35-12, 14 COMPARTMENTS., 539280 SQ.FT TOTAL FILTERING AREA WITH A/N: HEAT EXCHANGER, U-TUBE	C53 D66	D4		PM: (9)	A72.1, D12.4, D29.1, D29.2, D322.1, D381.2, E71.2, E71.3, E193.2, E448.2, K40.2, K67.2
CONVEYOR, ROTARY	D54			PM: (9) [RULE 405,2-7-1986]	
CONVEYOR, ROTARY	D55			PM: (9) [RULE 405,2-7-1986]	
CONVEYOR, ROTARY	D56			PM: (9) [RULE 405,2-7-1986]	
CONVEYOR, ROTARY	D57			PM: (9) [RULE 405,2-7-1986]	

* (1)(1A)(1B) Denotes RECLAIM emission factor
(3) Denotes RECLAIM concentration limit
(5)(5A)(5B) Denotes command and control emission limit
(7) Denotes NSR applicability limit
(9) See App B for Emission Limits
(2)(2A)(2B) Denotes RECLAIM emission rate
(4) Denotes BACT emission limit
(6) Denotes air toxic control rule limit
(8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
(10) See Section J for NESHAP/MACT requirements
** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TAMCO

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 2 : METAL MELTING					
CONVEYOR, ROTARY	D58			PM: (9) [RULE 405,2-7-1986]	
CONVEYOR, ROTARY	D59			PM: (9) [RULE 405,2-7-1986]	
CONVEYOR, ROTARY	D60			PM: (9) [RULE 405,2-7-1986]	
CONVEYOR, ROTARY	D61			PM: (9) [RULE 405,2-7-1986]	
CONVEYOR, ROTARY	D62			PM: (9) [RULE 405,2-7-1986]	
CONVEYOR, SCREW	D63			PM: (9) [RULE 405,2-7-1986]	
CONVEYOR, SCREW	D64			PM: (9) [RULE 405,2-7-1986]	
Process 3 : RE-HEATING					
FURNACE, BILLET HEATING, NATURAL GAS, WITH LOW NOX BURNER, FLUE GAS RECIRCULATION, 171 MMBTU/HR WITH A/N: 463937 Permit to Construct Issued: 04/19/07 BURNER, NATURAL GAS, BRICMONT, TOP HEAT ZONE, WITH LOW NOX BURNER, 10 TOTAL; 8 MMBTU/HR	D47		NOX: MAJOR SOURCE**	CO: 2000 PPMV (5A) [RULE 407,4-2-1982] ; NOX: 48.3 LBS/MMSCF NATURAL GAS (1) [RULE 2012,5-6-2005] ; PM: (9) [RULE 404,2-7-1986] PM: 0.1 GRAINS/SCF (5) [RULE 409,8-7-1981]	C1.6, D12.1, D28.2, L341.1

* (1)(1A)(1B) Denotes RECLAIM emission factor
(3) Denotes RECLAIM concentration limit
(5)(5A)(5B) Denotes command and control emission limit
(7) Denotes NSR applicability limit
(9) See App B for Emission Limits
(2)(2A)(2B) Denotes RECLAIM emission rate
(4) Denotes BACT emission limit
(6) Denotes air toxic control rule limit
(8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
(10) See Section J for NESHAP/MACT requirements

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TAMCO

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 3 : RE-HEATING					
BURNER, NATURAL GAS, BRICMONT, BOTTOM HEAT ZONE, WITH LOW NOX BURNER, 10 TOTAL; 6.6 MMBTU/HR					
BURNER, NATURAL GAS, BRICMONT, SOAK ZONES (THREE), WITH LOW NOX BURNER, 10 TOTAL; 2.5 MMBTU/HR					

- * (1)(1A)(1B) Denotes RECLAIM emission factor
(3) Denotes RECLAIM concentration limit
(5)(5A)(5B) Denotes command and control emission limit
(7) Denotes NSR applicability limit
(9) See App B for Emission Limits
- (2)(2A)(2B) Denotes RECLAIM emission rate
(4) Denotes BACT emission limit
(6) Denotes air toxic control rule limit
(8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
(10) See Section J for NESHAP/MACT requirements

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TAMCO

SECTION H: DEVICE ID INDEX

**The following sub-section provides an index
to the devices that make up the facility
description sorted by device ID.**

FACILITY PERMIT TO OPERATE TAMCO

SECTION H: DEVICE ID INDEX

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D60	2	2	0
D61	2	2	0
D62	2	2	0
D63	2	2	0
D64	2	2	0
D66	1	2	0

FACILITY PERMIT TO OPERATE TAMCO

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

FACILITY CONDITIONS

- F5.1 The following conditions shall apply to operations with lead containing materials and housekeeping practices for fugitive lead-dust emissions at this facility:

Dust-forming material which may contain lead, including but not limited to baghouse dust, dross, ash, or feed material, shall be stored in closed containers in enclosed storage areas

Surfaces upon which lead-containing dust accumulates and which are subject to vehicular or foot traffic shall be either washed down, vacuum-cleaned, or wet-mopped at least once a week, or shall be maintained with the use of non-toxic chemical dust suppressants

Lead or lead-containing wastes generated from housekeeping activities shall be stored, disposed of, recovered, or recycled using practices that do not lead to fugitive lead-dust emissions

Records of the quantities of each lead-containing material processed, and the lead content of the material shall be maintained. The records shall include but not limited to purchase records, usage records, results of analysis or other verification to indicate lead content and lead usage. The records shall be kept for at least the last five years, and made available to District personnel upon request

Records of housekeeping activities, and inspection and maintenance of emission collection system(s) and control device(s) shall be maintained. The records shall include the name of the person performing the activity, description of the activity, and the dates on which the specific activity was completed. The records shall be kept for at least the last five years, and made available to District personnel upon request

[RULE 1420, 9-11-1992]

- F9.1 Except for open abrasive blasting operations, the operator shall not discharge into the atmosphere from any single source of emissions whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour which is:

(a) As dark or darker in shade as that designated No.1 on the Ringelmann Chart, as published by the United States Bureau of Mines; or

(b) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subparagraph (a) of this condition.

[RULE 401, 3-2-1984; RULE 401, 11-9-2001]

FACILITY PERMIT TO OPERATE TAMCO

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

- F14.1 The operator shall not purchase diesel fuel containing sulfur compounds in excess of 15 ppm by weight as supplied by the supplier.

[RULE 431.2, 9-15-2000]

- F14.2 The operator shall not use fuel oil containing sulfur compounds in excess of 0.05 percent by weight.

[RULE 431.2, 5-4-1990; RULE 431.2, 9-15-2000]

DEVICE CONDITIONS

A. Emission Limits

- A63.1 The operator shall limit emissions from this equipment as follows:

CONTAMINANT	EMISSIONS LIMIT	AMOUNT	UNITS
PM10	Less than or equal to	7260	LBS IN ANY CALENDAR MONTH

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D4]

- A72.1 The operator shall maintain this equipment to achieve a minimum removal efficiency of 99.692 percent for PM during the normal operation of the equipment it vents.

This condition shall only apply when the throughput limit of 100,000 tons of material processed in any one calendar month becomes effective.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : C53]

C. Throughput or Operating Parameter Limits

FACILITY PERMIT TO OPERATE TAMCO

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

- C1.6 The operator shall limit the natural gas fuel usage to no more than 66420000 cubic feet in any one calendar month.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D47]

- C1.7 The operator shall limit the material processed to no more than 100000 ton(s) in any one calendar month.

For the purpose of this condition, material processed shall be defined as scrap metal.

This throughput limit of 100,000 tons in any one calendar month does not become effective until the operator can demonstrate to the satisfaction of the District through source testing and receive a written notification from the District stating that the PM10 emissions corresponding to a throughput limit of 100,000 tons in any one calendar month do not exceed 7,260 pounds in any one calendar month and the operator is allowed to operate the equipment at this throughput limit.

Before this throughput limit becomes effective, the operator shall operate the equipment at a throughput limit of 51,210 tons in any one calendar month as specified in Condition No. C1.2.

The operator shall maintain appropriate records in a manner approved by the District to demonstrate compliance with this condition.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D4]

- C1.9 The operator shall limit the natural gas fuel usage to no more than 23000000 cubic feet in any one calendar month.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D4]

FACILITY PERMIT TO OPERATE TAMCO

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

C409.1 The operator shall ensure that oil filters used in this equipment shall meet the following specified requirements:

The amount of oil filters used shall not exceed 750 tons in any one calendar month.

Oil filters shall be drained and crushed prior to being used in this equipment.

Records on the amount of oil filters used shall be maintained, in a manner approved by the District, to demonstrate compliance with this condition.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002; RULE 401, 3-2-1984; RULE 401, 11-9-2001]

[Devices subject to this condition : D4]

D. Monitoring/Testing Requirements

D12.1 The operator shall install and maintain a(n) non-resettable totalizing fuel meter to accurately indicate the fuel usage of the billet heating furnace.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D47]

D12.3 The operator shall install and maintain a(n) temperature gauge to accurately indicate the temperature at the exit of the water cooled elbow in the exhaust system.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : D4]

D12.4 The operator shall install and maintain a(n) differential pressure gauge to accurately indicate the differential pressure across the the filter bags.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : C53]

FACILITY PERMIT TO OPERATE TAMCO

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

D28.2 The operator shall conduct source test(s) in accordance with the following specifications:

The test shall be conducted to determine NOx and CO concentrations, in terms of ppmv on a dry basis corrected to 3% oxygen, at the outlet.

The District shall be notified of the date and time of the test at least 10 days prior to the test.

[RULE 2005, 5-6-2005]

[Devices subject to this condition : D47]

FACILITY PERMIT TO OPERATE TAMCO

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

D29.1 The operator shall conduct source test(s) for the pollutant(s) identified below.

Pollutant(s) to be tested	Required Test Method(s)	Averaging Time	Test Location
PM emissions	Approved District method	District-approved averaging time	Simultaneous inlet and outlet
VOC	Approved District method	District-approved averaging time	Outlet
PM10 emissions	Approved District method	District-approved averaging time	Outlet

The test shall be conducted at equipment maximum throughput. The test shall determine the PM emissions, in lb/hr; baghouse PM control efficiency, in %; PM concentrations, in grains/acf; PM10 emissions, in lb/hr; and VOC emissions, in lb/hr.

The test shall determine/document the exhaust flow rate, in acfm; the moisture content, in %; the exhaust temperature, in degree F; the oxygen content, in %; the materials charged, in tons/hr; and the fuel rate, in scfh.

A speciated analysis shall be conducted for organic compounds using GC/MS.

If results of the speciated analysis show any organic compound subject to Rule 1401 Amended March 4, 2005 exists, the test shall also determine the emissions, in lb/hr, of the organic compound.

The District shall be notified of the date and time of the test at least 10 days prior to the test.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002; RULE 1401, 3-4-2005]

[Devices subject to this condition : C53]

FACILITY PERMIT TO OPERATE TAMCO

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

D29.2 The operator shall conduct source test(s) for the pollutant(s) identified below.

Pollutant(s) to be tested	Required Test Method(s)	Averaging Time	Test Location
PM10 emissions	Approved District method	District-approved averaging time	Outlet

The test shall be conducted at equipment maximum throughput to demonstrate compliance with Condition A63.1, once every 12-month period. The first period shall begin on the date the equipment is first operated.

The test shall determine the PM10 emissions, in lb/hr. The test shall also determine/document the exhaust flow rate, in acfm; the moisture content, in %; the exhaust temperature, in degree F; the oxygen content, in %; the materials charged, in tons/hr; and the fuel rate, in scfh

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : C53]

D322.1 The operator shall perform annual inspection of the equipment and filter media for leaks, broken or torn filter media, and improperly installed filter media.

[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition : C53]

FACILITY PERMIT TO OPERATE TAMCO

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

D323.3 The operator shall conduct an inspection for visible emissions from all stacks and other emission points of this equipment whenever there is a public complaint of visible emissions, whenever visible emissions are observed, and on a semi-annual basis, at least, unless the equipment did not operate during the entire semi-annual period. The routine semi-annual inspection shall be conducted while the equipment is in operation and during daylight hours.

If any visible emissions (not including condensed water vapor) are detected that last more than three minutes in any one hour, the operator shall verify and certify within 24 hours that the equipment causing the emission and any associated air pollution control equipment are operating normally according to their design and standard procedures and under the same conditions under which compliance was achieved in the past, and either:

- 1). Take corrective action(s) that eliminates the visible emissions within 24 hours and report the visible emissions as a potential deviation in accordance with the reporting requirements in Section K of this permit; or
- 2). Have a CARB-certified smoke reader determine compliance with the opacity standard, using EPA Method 9 or the procedures in the CARB manual "Visible Emission Evaluation", within three business days and report any deviations to AQMD.

The operator shall keep the records in accordance with the recordkeeping requirements in Section K of this permit and the following records:

- 1). Stack or emission point identification;
- 2). Description of any corrective actions taken to abate visible emissions;
- 3). Date and time visible emission was abated; and
- 4). All visible emission observation records by operator or a certified smoke reader.

[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition : D4]

FACILITY PERMIT TO OPERATE TAMCO

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

D381.2 The operator shall conduct an inspection for visible emissions from all stacks and other emission points of this equipment whenever there is a public complaint of visible emissions, whenever visible emissions are observed, and on a quarterly basis, at least, unless the equipment did not operate during the entire quarterly period. The routine quarterly inspection shall be conducted while the equipment is in operation and during daylight hours. If any visible emissions (not including condensed water vapor) are detected, the operator shall take corrective action(s) that eliminates the visible emissions within 24 hours and report the visible emissions as a potential deviation in accordance with the reporting requirements in Section K of this permit.

The operator shall keep the records in accordance with the recordkeeping requirements in Section K of this permit and the following records:

- 1). Stack or emission point identification;
- 2). Description of any corrective actions taken to abate visible emissions; and
- 3). Date and time visible emission was abated.

[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition : C53]

E. Equipment Operation/Construction Requirements

E71.2 The operator shall not operate this equipment if the opacity of the exhaust gases from the baghouse is 3 percent or greater.

[40CFR 60 Subpart AA, 2-22-2005]

[Devices subject to this condition : C53]

E71.3 The operator shall not operate this equipment if the opacity of the gases from the screw conveyor is 10 percent or greater.

[40CFR 60 Subpart AA, 2-22-2005]

[Devices subject to this condition : C53]

FACILITY PERMIT TO OPERATE TAMCO

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

- E71.4 The operator shall only charge drained and crushed oil filters to this equipment during the portion of the operation which produces the maximum temperature at the exit of the water cooled elbow.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D4]

- E71.6 The operator shall not operate this equipment if the opacity of the gases from the furnace building is 6 percent or greater.

[40CFR 63 Subpart YYYYYY, 12-28-2007]

[Devices subject to this condition : D4]

FACILITY PERMIT TO OPERATE TAMCO

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

E193.2 The operator shall operate and maintain this equipment according to the following requirements:

The baghouse pressure differential across the filter bags shall be maintained between 2" and 6" of water column whenever the equipment it serves is in operation.

The operator shall operate and maintain a pressure differential gauge to measure and indicate the pressure differential across the baghouse filter bags pursuant to the operation and maintenance requirements in 40 CFR Part 64.7. The pressure differential across the filters shall be recorded continuously.

For the purpose of this condition, a deviation shall be defined as when the pressure differential across the filters is less than 2" of water column or more than 6" of water column occurs during the normal operation of the equipment it serves.

Whenever a deviation occurs, the operator shall inspect this equipment to identify the cause of such a deviation, take immediate corrective action to maintain the pressure differential across the filters between 2" and 6" of water column, and keep records of the duration and cause (including unknown cause, if applicable) of the deviation and the corrective actions taken.

All deviations shall be reported to the AQMD on a semi-annual basis pursuant to the requirements specified in 40 CFR Part 64.9 and Condition Nos. 22 and 23 in Section K of this permit. The semi-annual monitoring report shall include the total operating time of this equipment and the total accumulated duration of all deviations for each semi-annual reporting period specified in Condition No. 23 in Section K of this permit.

The operator shall submit an application with an Quality Improvement Plan (QIP) in accordance with 40 CFR Part 64.8 to the AQMD if more than six deviations occur in any semi-annual reporting period specified in Condition No. 23 in Section K of this permit. The required QIP shall be submitted to the AQMD within 90 calendar days after the due date for the semi-annual monitoring report.

The operator shall inspect and maintain all components of this equipment on an annual basis in accordance with the manufacturer's specifications.

The operator shall keep adequate records in a format that is acceptable to the AQMD to demonstrate compliance with all applicable requirements specified in this condition and 40 CFR Part 64.9 for a minimum of five years.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997; 40CFR Part 64, 10-22-1997]

[Devices subject to this condition : C53]

FACILITY PERMIT TO OPERATE TAMCO

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

E448.2 The operator shall comply with the following requirements:

Dust collected in the baghouse shall be discharged only into enclosed containers or returned to process and shall not be handled in a manner that may result in the re-release of collected materials to the atmosphere.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : C53]

E448.3 The operator shall comply with the following requirements:

The operator shall only purchase motor scrap from scrap providers who participate in an EPA approved program for removal of mercury switches.

[40CFR 63 Subpart YYYYY, 12-28-2007]

[Devices subject to this condition : D4]

K. Record Keeping/Reporting

K40.2 The operator shall provide to the District a source test report in accordance with the following specifications:

Source test results shall be submitted to the District no later than 45 days after the source test was conducted.

The final test report shall include all test results including those from preliminary tests.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : C53]

FACILITY PERMIT TO OPERATE TAMCO

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

K67.2 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

The name of the person performing the inspection and/or maintenance of the filter media

The date, time and results of the inspection

The date, time and description of any maintenance or repairs resulting from the inspection

[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition : C53]

L. Expiration Date

L341.1 Within 90 days after start-up of this equipment, the following device(s) shall be removed from operation:

D7

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D47]